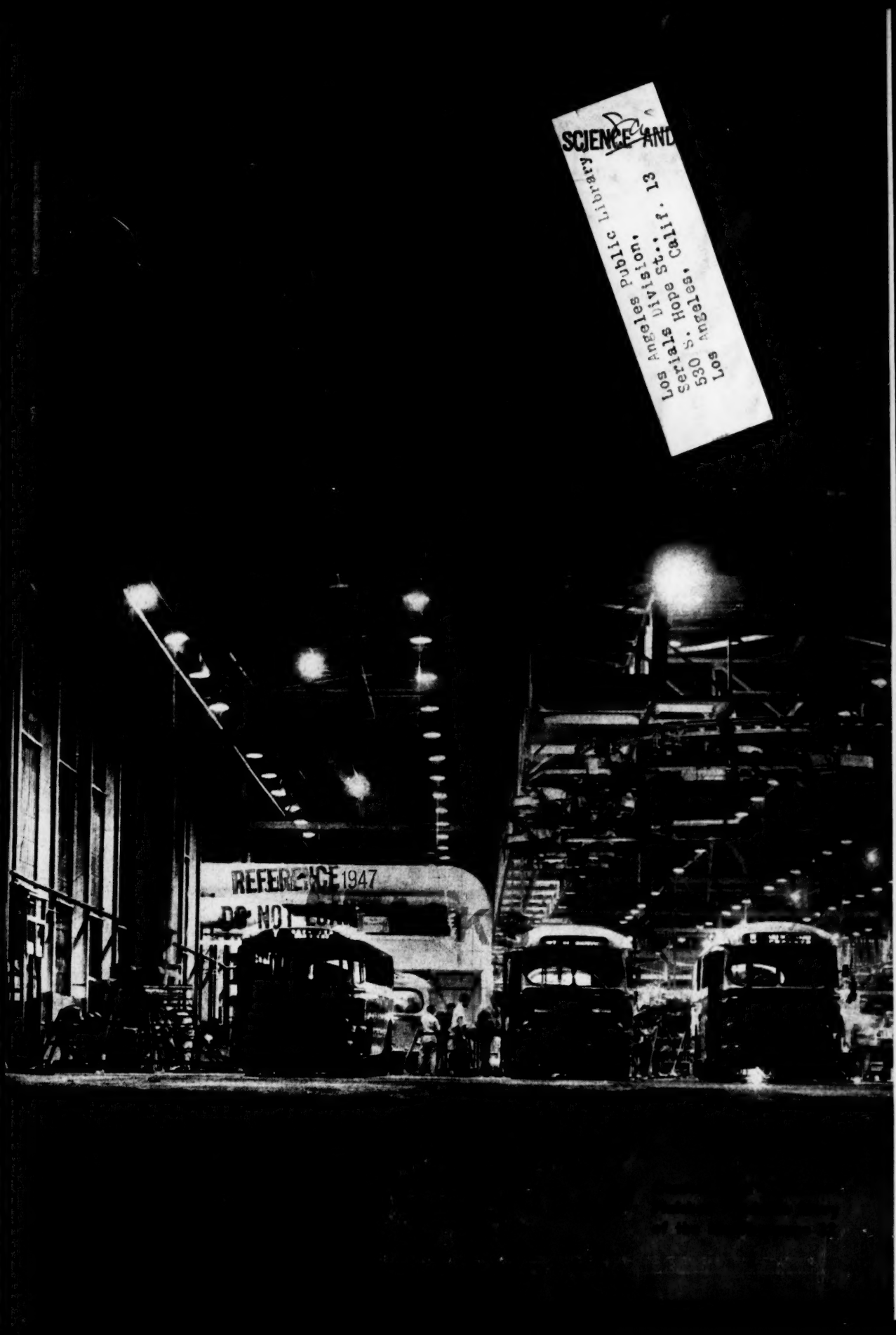

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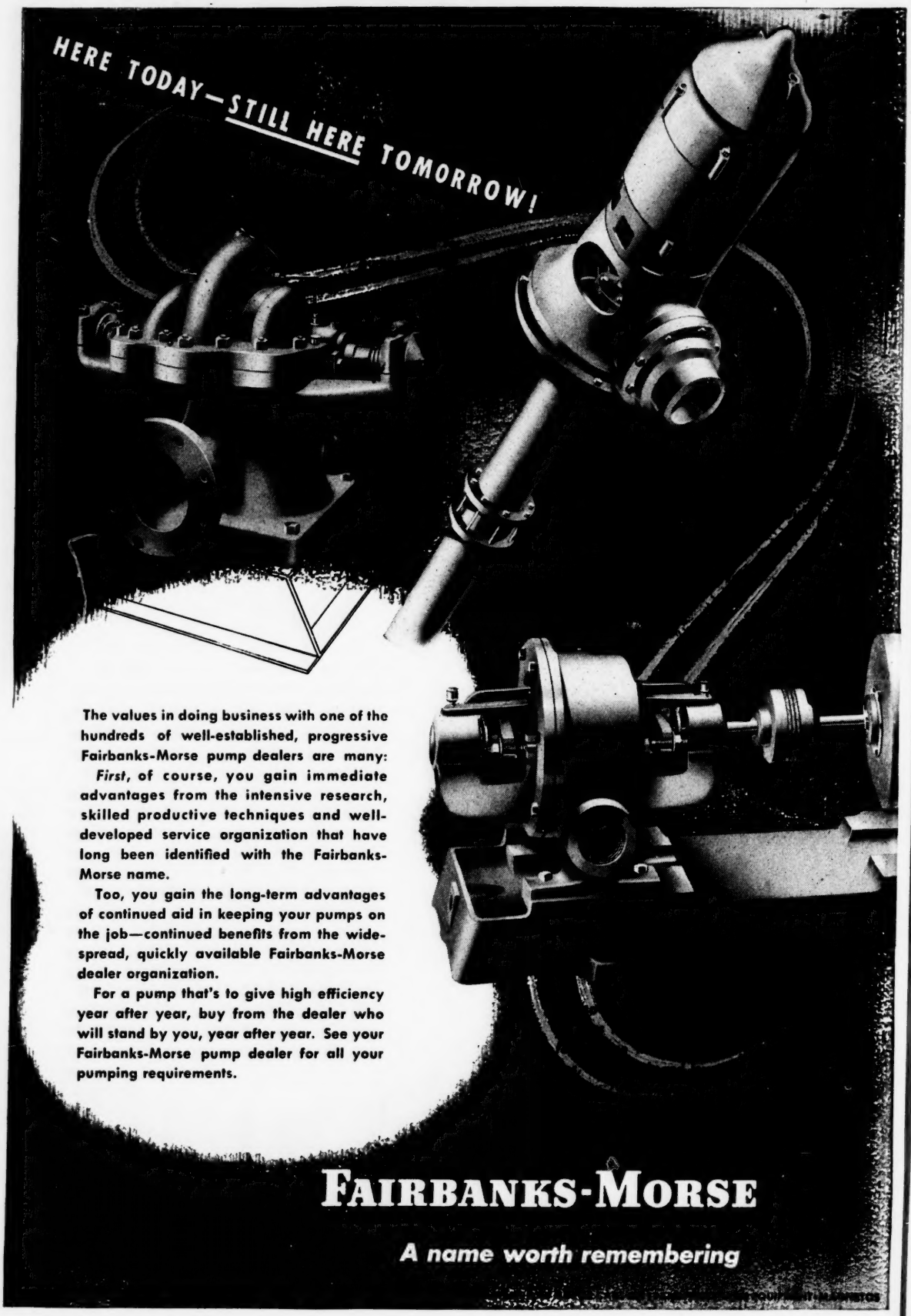

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First, of course, you gain immediate advantages from the intensive research, skilled productive techniques and well-developed service organization that have long been identified with the Fairbanks-Morse name.

Too, you gain the long-term advantages of continued aid in keeping your pumps on the job—continued benefits from the widespread, quickly available Fairbanks-Morse dealer organization.

For a pump that's to give high efficiency year after year, buy from the dealer who will stand by you, year after year. See your Fairbanks-Morse pump dealer for all your pumping requirements.

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A name worth remembering

MANUFACTURERS RECORD

ESTABLISHED 1882

A Publication for Executives

Volume 116 **JULY, 1947** **Number 7**

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Cover Illustration—Big doors at the Consolidated Vultee plant, Nashville, Tenn., open to show buses being produced where previously airplanes rolled off the assembly lines now also converted for home appliance production. —See page 32.

MANUFACTURERS RECORD PUBLISHING CO.

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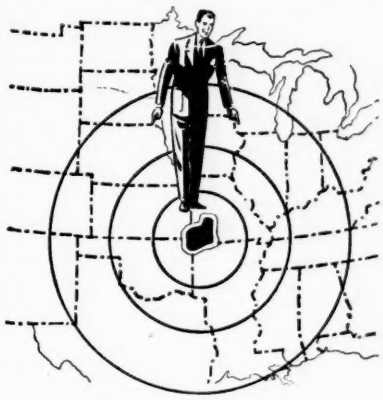
HOW TO BE MR. IN-BETWEEN



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Norfolk and Western Railway

PRECISION TRANSPORTATION

NEW AND EXPANDING PLANTS

COMPILED FROM REPORTS PUBLISHED IN THE DAILY CONSTRUCTION BULLETIN

ALABAMA

ALABAMA CITY — Dwight Manufacturing Co., heating system, $125,000.
ANNISTON—Fowler Brothers Motor Co., service garage, $40,000.
AUBURN—Auburn Broadcasting Co., station.
BIRMINGHAM—Liberty Motors, Inc., sales and service building, $239,000.
BIRMINGHAM—Voice of Dixie, Inc., broadcasting station.
BIRMINGHAM—Jack Cole Co., Inc., building, $75,000.
DECATUR — North Alabama Broadcasting Co., radio station.
DEMOPOLIS—Demopolis Broadcasting Co., radio station.
ENTERPRISE — Wiregrass Broadcasting Co., radio station.
GADSDEN—Coosa Valley Broadcasting Co., radio station.
GADSDEN — Dwight Manufacturing Co., $500,000 air-conditioning project.
GADSDEN—Mutual Foundry Co., iron foundry, $10,500.
GADSDEN — W. D. Wilson & Kenneth Thompson, warehouse, $40,000.
HARTFORD—Hartford Shirt Factory, shirt factory.
MOBILE—Pape Broadcasting Co., FM radio station.
MOBILE—Louisville and Nashville Railroad plans remodeling and modernization of Crestview station.
MOBILE—Gulf Coast Marine Supply Co., warehouse, $30,000.
MONTGOMERY — Weaver Furniture & Clothing Co., warehouse, $67,000.
MONTGOMERY—United Broadcasting Co., radio station.
ONEONTA—Blue Bell, Inc., overall factory, $1,500,000.
ROBERTSDALE—James H. Luther, frozen food locker plant, $30,000.
SHEFFIELD—Southern Railway System, station.
TUSCALOOSA—J. S. Robertson, building supply plant, $20,000.

ARKANSAS

BATESVILLE — Batesville Milling Co., broiler processing plant.
BRINKLEY—Standard Ice Co., 300-locker frozen food plant.
FORREST CITY—Forrest City Broadcasting Co., Inc., radio station.
FORT SMITH—Arkansas-Oklahoma Broadcasting Corp., radio station.
MARIANNA—Peoples Cooperative Gin Association, $45,000 gin.
NORTH LITTLE ROCK—Little Rock Food Products Co., canning plant, $150,000.
STUTTGART — Stuttgart Broadcasting Corp., radio station.

DISTRICT OF COLUMBIA

WASHINGTON—Allen B. Dument Laboratories, Inc., commercial television radio station.
WASHINGTON—A. L. Goode, launderette, $20,000.
WASHINGTON—Benjamin Datlow fur storage building, $40,000.

FLORIDA

CARRABELLE—Southern Kraft Paper Co., paper mill.
CLEARWATER — Springtime City Broadcasting Co., FM broadcasting station.
CORAL GABLES — Adams Yappa, garage and service station, $17,000.
CORAL GABLES—Frabeco, Inc., office and warehouse, $418,000.
CORAL GABLES—Withers Van Lines, Inc., warehouse, $59,342.
CRESTVIEW — Crestview Plumbing & Hardware Co., building, $10,000.
DADE COUNTY—Benner Box Co., addition to box factory, $57,073.
DELAND—Deland Broadcasting Co., radio station.
GAINESVILLE — Alachua County Broadcasting Co., radio station.
GAINESVILLE—Atlantic Coast Line Railroad Co., station and office building.
HOLLYWOOD — Hollywood Broadcasting Co., radio station.
JACKSONVILLE — Hajoca Corporation, warehouse and office building, $84,000.
JACKSONVILLE—Burroughs Adding Machine Co., building, $27,000.
KISSIMMEE — City extension to power plant, $27,740.
MARIANNA—John H. Phipps broadcasting station.
MELBOURNE — Melbourne Broadcasting Corp., radio station.
MIAMI—Sunny Brook Creamery, creamery, $38,600.
MIAMI—Maxwell Co., garage.
MIAMI—Public Gas Co., showroom addition.
MIAMI — Florida Hill York Corp., additions and alterations to building, $21,000.
MIAMI — Leffler Properties, Inc., garage building.
MIAMI—June Dairies, dairy plant.
MIAMI—Nolan Brown Motors, addition to garage, $80,000.
MIAMI—Sun Oil Co., station, $10,000.
MIAMI—Southern Bell Telephone & Telegraph Co., telephone office addition, $72,000.
MIAMI BEACH — Biscayne Broadcasting Co., Inc., broadcasting station and foundation for tower.
OCALA — Brewster Shirt Co., sprinkler system.
ORLANDO — J. Max Scott, truck garage, $9,600.
PANAMA CITY—Nelson Chevrolet Co., Inc., alterations and additions to building.
PENSACOLA—Escambia Broadcasting Co., vertical antenna.
SANFORD—Florida Power and Light Co., power generating equipment, $1,500,000.
SANFORD — Southeastern Broadcasting System, radio station.
WINTER HAVEN—Seaboard Air Line Railway Co., freight station, $70,000.

New and Expanding Plants Reported: June--291 1947 to date--1,669

GEORGIA

ALBANY — Clark Thread Co., spool mill, $60,000.
ALBANY—Seaboard Air Line Railroad Co., freight station, $25,000.
ATLANTA—Ernest G. Beaudry, Inc., truck sales and service building.
ATLANTA—Simmons Co., plant, $120,000.
ATLANTA — Atlanta Dairies Cooperative, milk processing plant addition, $23,000.
ATLANTA—Georgia Power Co., plans substation, $28,000.
ATLANTA—Sherwin Williams Co., warehouse.
ATLANTA—Atlanta Flooring & Insulation Co., office and warehouse, $22,000.
ATLANTA — Southeastern Bonded Warehouses, addition to warehouse, $15,000.
ATLANTA—Atlanta Broadcasting Co., radio station.
ATLANTA — Liberty Broadcasting Corp., radio station.
ATLANTA—Wilson and Cope Broadcasting Co., radio station.
ATLANTA—Fairbanks-Morse Co., office and warehouse, $150,000.
ATLANTA—General Broadcasting Co., radio station.
ATLANTA—J. H. Allen, Allen Scale Co., sales office and repair building, $20,000.
ATLANTA—Grover Thomas, warehouse and office building, $22,500.
AUGUSTA—Morgan Truck & Tractor Co., sales and service building and warehouse, $50,000.
CALHOUN — Calhoun Broadcasting Corp., radio station.
CALHOUN—Miller Brothers, auto sales and service building, $60,000.
COLUMBUS — Strickland Motor Co., automotive building, $200,000.
COLUMBUS — Standard Construction Co., garage, $30,000.
COLUMBUS — Georgia-Alabama Broadcasting Corp., radio station.
COMMERCE — Commerce Manufacturing Co., manufacturing plant addition, $28,000.
DECATUR—Eurith Dickinson Rivers, Jr., FM radio station.
DECATUR—Whiteway Creamery, building plant, $100,000.
DUBLIN—Dublin Broadcasting Co., Class B, 2.5 KW, 310 feet.
ELBERTON — Elberton Broadcasting Co., transmitter.
GAINESVILLE—Northeast Georgia Broadcasting Co., FM radio station.
GRIFFIN—Dundee Mills, dye and bleaching plant, $300,000.
HAPEVILLE—Broadway Motors, Inc., motor rebuilding plant, $55,000.
HAPEVILLE—Southeastern Manufacturing Co., plant, $60,000; new equipment, $50,000.
HAPEVILLE—Ford Motor Co., 47-Z-252—balcony for 240 KVA transformers.
LINDALE — Pepperell Manufacturing Co., gymnasium.
MACON—Binswanger & Co., office and warehouse, $35,000.
MACON — Atlanta Gas Light Co., service building, $35,000.
MACON—Macon Gas Co., service building, $50,000.
MACON—Bibb Manufacturing Co., addition.
MARIETTA — Southeastern Greyhound Lines, bus terminal.
MOULTRIE — John F. Bidock, FM radio station.
ROME—News Publishing Co., class B radio station.
ROME—Anchor Rome Mills, Inc., mill addition, $100,000.
WEST POINT — Georgia-Alabama Supply Co., warehouse, $56,000.

KENTUCKY

CARROLLTON—J. R. Stout & Sons, garage and living quarters, $32,000.
COVINGTON — Hicks Motor Co., repair shop, $15,000.
FRANKLIN COUNTY—National Distillers Products Corp., warehouse, $210,000.
HENDERSON—City, $2,000,000 electric power plant.
IRVINE—Standard Oil Co., filling station, $11,800.
LEXINGTON — C. F. Glenn, repair shop, $18,400.
LOUISVILLE—Central Soya Co., Inc., warehouse, $23,831.
LOUISVILLE—Pepsi-Cola, Louisville Bottlers, Inc., warehouse and bottling plant, $32,000.
MAYSVILLE—Standard Tobacco Co., Inc., radio station.

LOUISIANA

ABBEVILLE—Vermilion Farmers Co-operative Association, rice drying plant, $150,000.
ABBEVILLE — Abbeville Broadcasting Co., Inc., radio station.
BATON ROUGE — Louisiana State University, studio and transmitter building, Radio Station WLSU, $14,296.
BATON ROUGE—Modern Broadcasting Co. of Baton Rouge, Inc., radio station.
BATON ROUGE—Ethyl Corp., $20,000,000 expansion.
BOGALUSA — L. K. Corkern, broadcast station.
DONALDSONVILLE — M. Trelles & Co., factory building.
EUNICE—Tri-Parish Motor Co., building, $37,000.
EUNICE—Eunice Rice Milling Co., building, $15,000.
HAMMOND—Frank P. Cucchiara, building, $15,000.
HAMMOND—Joseph A. Sims & Henry A. Mentz, Jr., broadcast station.
JONESVILLE—City, natural gas transmission and distribution system.
LAFAYETTE — Evangeline Broadcasting Co., radio station.

(Continued on next page)

LAKE CHARLES—Frank R. Gibson, broadcast station.
LAKE CHARLES—Cities Service Co., Inc., lubricating oil plant, $30,000,000.
LAKE CHARLES—Cities Service Refining Corp., buildings.
LAKE CHARLES — Levingston Brothers Abstract Co., building, $33,501.
MONROE—Selig Manufacturing Co., furniture plant, $250,000.
NEW IBERIA — United Gas Corp., warehouse, $25,000.
NEW ORLEANS—600-foot antenna, Gretna, Station WTPS-FM.
NEW ORLEANS—Louise C. Carlson, FM broadcast station.
NEW ORLEANS—New Orleans Public Service, Inc., transformer vaults, $18,000.
NEW ORLEANS—Board of Commissioners of Port of New Orleans, airplane manufacturing plant in Michaud.
NEW ORLEANS—Lone Star Cement Corp., excavation and pile foundations.
NEW ORLEANS—Realty Operations, Inc., warehouse, $50,000.
SHREVEPORT — F. H. Ford, alterations and repairs to building, $14,000.
SHREVEPORT — Ward Investment Co., Inc., alterations and repairs to building, $46,000.

MARYLAND

BALTIMORE—Supreme Paper Bag Corp., building.
BALTIMORE—J. H. Williams & Co., Inc., alterations and addition bottling plant.
BALTIMORE — Consolidated Gas, Electric Light & Power Co., North Point Holder Station.
BALTIMORE — Consolidated Gas, Electric Light & Power Co., sub-station.
BALTIMORE — Weiss Motor Co., service building addition.
BALTIMORE—Wassell Bakery, Inc., addition to bakery, $65,000.
BALTIMORE — J. H. B. Albert, machine shop, $12,000.
BALTIMORE—A. D. Anderson, auto service building.
BALTIMORE—Harry M. Will, truck service building.
BALTIMORE — Sherwood Brothers, Inc., service station.
BALTIMORE — Warren Ehret Co., warehouse, $40,000.
BALTIMORE—The William Schluderberg-T. J. Kurdle Co., addition to sausage factory.
BALTIMORE — F. S. Royster Guano Co., wash house.
BALTIMORE—Baltimore Motors Corp., additional garage space, $45,000.
BALTIMORE—S. M. Reicher, service station, $15,000.
BALTIMORE—Mt. Vernon Ice Cream Co., building, $12,000.
BALTIMORE—H. B. Davis Co., addition, $20,000.
BALTIMORE—Comfort Spring Corp., lessee, factory, $30,000.
BALTIMORE—American Brewery, Inc., alterations and additions to bottling plant.
BALTIMORE — Pennsylvania Railroad, 7-mile spur to link Bay View yard with Sparrows Point.
BALTIMORE — Ayers Realty Co., warehouse, $60,000.
BALTIMORE—Rymland Realty Co., plans factory, $30,000.
BALTIMORE—Linden Heights Corp. plans office and storage building, $20,000.
BALTIMORE—A. B. Co. Machine & Welding Co., Inc., plans machine shop, $20,000.
BALTIMORE — E. H. Koester Baking Co. plans bridge, 2nd and 3rd story, $10,000.
BALTIMORE—New System Bakery, alterations to bakery.
BALTIMORE—National Brewing Co., building.
BALTIMORE—Guilford Realty Co., public garages, $100,000.
BALTIMORE — Standard Oil Co. of New Jersey, filling station.
BALTIMORE—Bush Realty Co., building, $10,000.
BALTIMORE — Standard Industries, Inc., alterations to building, $12,000.
BALTIMORE—High Ice Cream Co., garage, $10,000.
BALTIMORE—The Texas Co., filling station, $16,000.
BALTIMORE—WBAL broadcasting station.
BALTIMORE—Carroll J. Roush, dock and office.
BALTIMORE COUNTY—O. H. Williamson, Cockeysville, saw mill, $10,000.
BALTIMORE COUNTY—F. X. Hooper Co., factory, $35,600.
BALTIMORE COUNTY—Chesapeake & Potomac Telephone Co., storage and rest room.
BALTIMORE COUNTY — North Point Woodwork Co. plans building, $10,000.
BALTIMORE COUNTY—Consolidated Gas, Electric Light & Power Co., addition Pikesville station.
BALTIMORE COUNTY — Towson Ford Sales, addition to garage, $30,000.
CATONSVILLE—Catonsville Broadcasting Co., radio station.
ESSEX—Sidney H. Tinley, Jr., radio station.
MUIRKIRK—Mineral Pigments Corp., addition to plant.
SILVER SPRING — W. J. Freas, garage, $50,000.

MISSISSIPPI

CORINTH — City, natural gas system, $800,000.
GRENADA — Grenada Broadcasting Co., radio station.
GULFPORT—Gulf Paint & Chemical Co., paint manufacturing, $1,000,000.
JACKSON — Magee Laundry, building, $53,642.
MERIDIAN — Remodeling of building, $25,000.
MERIDIAN—Flintkote Co., boiler house extension, $40,000.
MOUND BAYOU—Town, natural gas system, $26,215.

MISSOURI

JOPLIN—Gateway Creamery Co., creamery building.
KANSAS CITY—Santa Fe Railroad, six million to ten million freight terminal expansion.
KANSAS CITY—Cities Service Gas Co., facilities, $23,698.
KENNETT — Kennett Broadcasting Corp., radio station.
KIRKSVILLE—No. Missouri Broadcasting Co., radio station.
ROLLA — Luther W. Martin & Assocs., "Show-Me" Broadcasting Co., broadcast station.
SIKESTON—Scott County Broadcasting Co. radio station.
SIKESTON — Semo Motor Co., building, $35,000.
SPRINGFIELD — Industrial Paper Stock Co., building, $28,000.
ST. LOUIS—St. Louis University, broadcast station.
ST. LOUIS — Devlin Corp., improvements, $500,000.
ST. LOUIS—St. Louis Envelope Co., printing shop, $40,000.
ST. LOUIS — Missouri Pacific Railroad, grade revision and curve reduction, $1,000,000.
ST. LOUIS — Western Electric Co., Inc., warehouse and repair shop, $308,000.
ST. LOUIS—Oakley Motors Co., alterations auto sales room and repair shop, $25,000.
ST. LOUIS—Texas Co., warehouse, $180,000.
ST. LOUIS — Caine Steel Co., warehouse, $100,000.

NORTH CAROLINA

AHOSKIE—Parker Brothers, Inc., class B station.
AHOSKIE—Roanoke-Chowan Broadcasting Co., Inc., radio station.
ASHEBORO—Bossong Hosiery Mills, Inc., street improvements.
CAMP LEJEUNE—Public Works Commission, emergency stand by electric cable.
CHARLOTTE — Walter Olin Nisbet, Jr., radio station.
CLEARWATER — Langley Manufacturing Co., warehouse and addition existing warehouse, $585,000.
CLINTON—Tar Heel Broadcasting System, Inc., radio station.
DURHAM—Scott & Roberts, Inc., dry cleaning plant.
ELIZABETH CITY — The Advance, Inc., radio station.
GREENSBORO—North Carolina Broadcasting Co., Inc., WBIG-FM, class B, 14 KW, 575 feet.
GREENSBORO—Carter Fabrics Corp., modernization program, $500,000.
GREENSBORO — Guilford Dairy, dairy products plant.
HAW RIVER—Cone Finishing Co., addition dye house.
HICKORY — Duke Hosiery Co., plant, $60,000; factory, $240,000.
LEXINGTON—Barbet Mills, addition.
MOORESVILLE — Mooresville Mills, Inc., expansion program, $1,200,000; mill building, $500,000; equipment, cost $700,000.
MOREHEAD CITY—Ma-Dix Asphalt Shingle Co., Inc., warehouse and factory building.
RALEIGH—Southern Bell Telephone & Telegraph Co., telephone exchange building addition, $700,000.
RALEIGH—News and Observer Publishing Co., transmitter location and modify directional antenna, one tower.
RALEIGH—Tire Sales & Service Co., Inc., addition, $11,020.
REIDSVILLE—Piedmont Carolina Broadcasting Co., Inc., radio station.
SALISBURY—Macanal Mills, Inc., installing machinery.
WADESBORO—Anson Radio Broadcasting Co., radio station.
WILMINGTON—Ocean Motor Sales, Inc., sales and service building.

OKLAHOMA

CLINTON — Western Oklahoma Broadcasting Co., Inc., radio station.
TULSA — Mid-Continent Petroleum Corp., enlargement of West Tulsa Refinery, $3,500,000.
TULSA — Fred Jones Broadcasting Co., transmitter.

SOUTH CAROLINA

BATH—Bath Mills, loading platforms, looms at Langley Mill, new combers, automatic quilling machines and improvement of spinning room, $2,500,000.
CHARLESTON — Greer Drug Co., alterations and additions to building, $39,869.
CHARLESTON—A. F. Pringle & Co., Inc., plant expansion.
CHARLESTON—Charleston Industrial Association, building, $88,354.
CHARLESTON — Ready Foods Canning Corp., plant.
COLUMBIA — Surety Life Insurance Co., class B, 150 KW, 455 feet, BPH-341.
LAKE CITY—A. K. Brown, salesroom and

(*Continued on page* 64)

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Potomac Soundings

by LAWRENCE SULLIVAN

See Lawrence Sullivan's special report on the Taft-Hartley Labor Law on page 25—"A New Beginning in Labor Relations."—Editor MANUFACTURERS RECORD.

Communist Front in the South

A special report from the House Committee on Un-American Activities, as presented in the *Congressional Record* for June 16, 1947 (page 7220-25), traces the origins, history, pamphlet literature and political activities of the Southern Conference for Human Welfare, branding the ten-year-old organization as "perhaps the most deviously camouflaged Communist-front organization" in the entire area.

"It shows unswerving loyalty to the basic principles of Soviet foreign policy," the report concluded. "It has consistently refused to take sharp issue with the activities and policies of either the Communist Party USA, or the Soviet Union. It has maintained in decisive posts persons who have the confidence of the Communist Press. It has displayed consistent anti-American bias and pro-Soviet bias, despite professions, in generalities, of love for America."

The organization was launched in Nashville, in the spring of 1938. Headquarters later were moved to New Orleans, where a nominal operating base now is maintained at 808 Perdido Street.

Robert F. Hall, then Secretary of the Communist Party in Alabama, and now Washington Correspondent for the *Daily Worker* of New York, described the origins of SCHW in the monthly magazine, *The Communist*, for January 1939. He related that Earl Browder, then Secretary of the Communist Party USA, had urged such a movement in the South early in 1938. Continuing his historical narrative, Hall wrote:

"Comrade Browder's remarks thus anticipated the Southern Conference for Human Welfare, held in Birmingham, November 20-23, 1938 . . . In this sense, we can say that the Southern Conference was a brilliant confirmation of the line of the democratic front advanced by Comrade Browder at the tenth convention . . . In strengthening this movement, our Party has before it a great task."

The Committee report recalled that many well-intentioned persons innocently joined the SCHW in its initial phases, in the belief that it was interested primarily in the problems of the South.

"Many of them since have severed their connections, on learning its true character . . . The Communists were using the Conference as a specific application of the so-called popular-front policy in the South. This line had been adopted by the Communist International at its seventh congress in Moscow in 1935 . . .

"James W. Ford, Negro Communist candidate for vice-president, speaking of the Southern Conference for Human Welfare and the Southern Negro Youth Conference, declared with considerable pride that: 'The Communists, through their pioneering work in the South, may justly claim to have laid the foundation for these great social movements.'"

Comrade Earl Browder, in a radio address November 27, 1938, from WOL, Washington, described SCHW as "one of the signs of the awakening of the American people." Before the House Committee on un-American Activities, Browder later acknowledged SCHW to be one of the official "transmission belts" of the world Communist organization, by which the Moscow party line is communicated secretly to the various national units of the world revolutionary movement.

"Not only do the Communists claim the Conference as their own product, but they even disclose how they pull the strings," the House Committee added.

Clark H. Foreman, president of SCHW, sent an indignant telegram to Rep. Chet Holifield, of California, denouncing the Committee report. But the Speaker ordered this message stricken from the pages of the *Congressional Record*, because of unparliamentary language.

Frank P. Graham, president of the University of North Carolina, identified as the first chairman of SCHW and still its honorary president, is positively identified in the Committee's report as "not a Communist."

"He is, however, one of those liberals who show a predilection for affiliation to various Communist-inspired front organizations."

Government Propaganda Under Fire

A special report from the Budget Bureau shows that federal agencies spent $74,829,467 for publicity and propaganda operations during the fiscal year 1946, the most recent year for which cumulative figures are available.

The official tabulation of good-will activities within the federal agencies weighs about 8 pounds. It lists 45,778 federal employees engaged full or part time "on publicity or propaganda work of every kind and description."

An earlier study, covering the fiscal year 1941, showed total publicity expenditures of the federal establishment at only $28,000,000.

Special Investigating Committee Set Up

In an effort to curb this run-away expansion the House has set up a special investigating committee on Government Publicity and Propaganda, under the chairmanship of Rep. Forest A. Harness (R., Indiana). Representatives Carter Manasco, of Jasper, Ala., and J. Frank Wilson, of Dallas, Tex., are the minority members of the investigating committee.

Everybody in Washington recognizes that certain information services are an essential part of any institutional operation. But Congress insists that there is a clear line of distinction between such legitimate services and those additional operations which tend to build up public opinion in favor of more projects, broader programs, or federal invasion of new spheres of public service. It is primarily the latter operations which the subcommittee seeks to itemize as to cost and scope.

"At least, the people are entitled to know how much they are spending to educate themselves to more spending," says Chairman Harness.

Public Relations—A Big Business

In the Department of Agriculture, Committee investigators found 525 persons engaged in public relations work. Salaries ranged from $10,000 to $1,888 a year. But only 204 members of this robust information staff were in Washington. The rest were found in Department of Agriculture branch offices in Boston, San Francisco, Milwaukee, Raleigh, Dallas, Denver, Albuquerque, Philadelphia, Ogden, Chicago, Atlanta; Juneau, Alaska; San Juan, Puerto Rico—and eight lesser cities throughout the States and Territories.

Total budget estimates for Agriculture's Office of Information for the fiscal year beginning July 1, 1947, were $2,307,000, an increase of $335,350 over the previous year.

Every known media of intelligence is utilized by Agriculture. The Office of Information prepared 1,998 press releases in the nine months ended April 1—an aver-

(Continued on next page)

Potomac Soundings — *by Lawrence Sullivan*

age of 11 every working day. During the same months, the office prepared 837 radio scripts, "including several network programs." The radio time contributed for these programs normally has a commercial value of more than $500,000 a year. The same nine months saw 17 new motion picture films released through the department's film stations. One was styled *The Crop That Never Fails*, a short subject depicting the superior investment values of government discount bonds. One of the farm bulletins exhibited before the committee was *Useful and Ornamental Gourds*. One wartime title still available is, *How to Spend the Weekend Without a Car*.

Special exhibits depicting federal activities are presented each year at 2,100 county and state fairs, the Department of Agriculture paying half the transportation charges. In addition, the Office of Information offers a special weekly service to agricultural periodicals, another to general magazines, a weekly science letter, a weekly clipsheet for women's page editors, and a weekly letter to Negro editors. Finally, the Department distributes each year some 250,000 copies of its *Year Book*, usually a volume of some 1,500 pages. For the current fiscal year, Agriculture's combined printing bill—all bureaus, divisions and offices—will be $2,260,784, exclusive of mimeographing and multigraphing processed within the department.

These activities begin to explain why the Government Printing Office, which occupies 33 acres of floor space in Washington and employs 7,900 full-time workers, can't keep up with government printing demands. The Budget Bureau estimates that the Department of Agriculture spends considerably less than half the federal government's total domestic outlay for publicity and information services.

$15 Million for Photo Equipment

Senator Millard Tydings, of Maryland, a member of the Appropriations Committee, once undertook his own survey of federal picture services, exclusive of the military branch. His report to the Senate told of 8,813 cameras in the civilian publicity bureaus, plus 19,078 pieces of auxiliary photographic equipment and 53,717 pieces of photo processing equipment. This federal picture plant represents an investment of roundly $15,000,000.

"The study discloses that this equipment is utilized to a considerable extent in illustrating and fostering the agencies concerned," Senator Tydings concluded.

Next there are the mimeographs, multigraphs, addressographs and small printing presses (exclusive of those in the military services and the Government Printing Office). This publicity equipment, said Senator Tydings, comprised 19,358 machines, valued at $7,750,000.

Largest Propaganda Agencies Listed

Some of the principal spenders for publicity in fiscal '46 were:

Department of State	$30,377,000
Treasury	11,104,800
Department of Agriculture	9,295,700
Office for Emergency Management	8,154,021
Office of War Information	3,772,095
Office of Price Administration	2,572,000
War Department	5,715,690
Navy Department	704,000
Office of Petroleum Administration	2,572,000
Federal Security Agency	2,043,988
Department of Commerce	2,003,212
Department of Labor	1,440,641
Veterans Administration	660,571
Tennessee Valley Authority	245,000
Post Office Department	11,960

Rep. Richard B. Wigglesworth (R., Mass.), long a crusader against excessive public relations expenditures within the federal establishment, expressed astonishment at the 1946 tabluation.

"In my opinion, the enormous governmental propaganda set-up is not only a gross waste of the people's money, but over and beyond that, makes for the destruction of the proper exercise of the legislative functions of the Government."

He cited to the House Title 5, Section 54, of the U. S. Code, which reads:

"No money appropriated by any act shall be used for the compensation of any publicity expert unless specifically appropriated for that purpose."

That law was enacted by Congress in 1915.

Business Pace To Level Off in Last Half

While talk of a slump or recession is far out of line with informed expectations, the business community is adjusting to a slower pace in business for the balance of 1947. In broad terms, the stock market already has discounted the lower level of production and distribution for the last half. Employment in manufacturing industries turned downward in April, for the first time since the last quarter of 1945. This does not, by any means, confirm the dour predictions of the professional "boom-and-bust" thinkers. It's not a bust—not even a slump. What is going on is simply that the American economy is gradually jogging down to a more natural peacetime pace — and a more rational price level, after an era of extreme dislocation flowing from the war.

Wholesale and retailer inventories once more are built up to normal, or better, in almost every line. In every major item save autos, consumers' hard goods are being produced in a volume equal to current demand.

Wholesale Prices Softer

Wholesale prices are easing in every line and the general policy of purchasing agents is to jog along covering immediate needs, with little future buying evident in any of the principal raw materials.

The Federal Reserve production index for April was 187 per cent of the 1935-39 average, against a wartime high of 226 in late 1945. The May rate was slightly below April, due principally to a shortage of steel, plus strikes, in the auto industry.

Average weekly earnings in all manufacturing industries combined dropped from $47.72 for 40.4 hours in March to $47.44 for 40 hours in April.

April construction contracts were 20 per cent under a year ago.

Production at Rate of $209 Billion

Commerce Department reports estimate that total national product—all goods and services combined—during the first quarter of 1947 was at the rate of $209-billions a year. This represents a slight gain over the last quarter of 1946, but not more than would be covered by the average increase in prices between the two quarters. Thus, business is definitely levelling off at a very high peacetime level. Total national product in both 1929 and 1940 was roughly $90-billions—or, stated in today's prices, $135-billions.

Symptomatic of the general tendency of major industries to catch up with current demand is the situation in rubber tires. During the first quarter, tire production was at the rate of 80,000,000 units a year, about 60 per cent above the prewar average. As a result, tire prices are softening, and many dealers are back to promotional campaigns. Rubber tires now carry 50 per cent natural gum and 50 per cent synthetic.

Buyer resistance to high prices is the most conspicious weather-vane on the business horizon today. In both foods and hard goods, current prices have outreached consumer purchasing power. The old buying frenzy has disappeared in virtually every market, giving way to more selective and critical evaluation of the product. This tendency is particularly notable in the textiles. Entertainment likewise has felt the sharp impact of the new penny-wise buying habits. For the first time in five years, both motion pictures and night clubs are reaching out for new business. Equally significant, total wagers at the Maryland tracks for 49 days of racing this year were 16 per cent under a year ago. This is a particularly reliable barometer, because the figures involve no price-increase adjustments for the periods.

Troubled Conditions Abroad

Many long-term business plans are faltering because of extremely troubled conditions in both Europe and Asia. The clouds of war are definitely on the diplomatic horizon. Russia is a war machine, geared for war, ready for early acts of military aggression, determined upon war if that be the price of realizing her expansion program. Five European capitals today live under the threat of a Red Army invasion. Informed business opinion abroad expects an overt act of aggression by Dictator Stalin before the summer is over.

Buyer Resistance in Textiles

Buyer resistance in textiles now is being felt at the factory, according to the Commerce Department's June outlook re-

(*Continued on page 59*)

★ ★ ★ ★ ★ LITTLE GRAINS OF SAND ★ ★ ★ ★ ★

"Little drops of water, little grains of sand,
Make the mighty ocean, and the pleasant land."

The following is a copy of a telegram sent to President Truman June 27th:

"I would like to add my thanks to the many other expressions of commendation that you will no doubt receive for your sportsmanlike acceptance of the will of the people expressed through their representatives in connection with their action in overriding the executive veto on the Taft-Hartley labor law. We, in every walk of life, look to you with pride as the personification of the ideals which are America.—Editor, MANUFACTURERS RECORD."

The men who man the trains—the operating unions—formally filed notice on June 20, asking for changes in 44 working rules. These are practically the same rules which caused the short-lived railroad strike in May, 1947, and which ended when the one year moratorium proposed by President Truman was accepted. Unlike the non-operating unions—clerks, freight handlers and others who do not actually operate trains—the operating brotherhoods are not directly asking for wage increases; BUT . . . the adoption of their demands would cost the industry a *billion dollars per year*. Add to this the 568 million dollar cost of the non-operating demands and we have an increase in operating cost of over one and a half billion dollars annually. Where is this money to come from?

Bread can be earned by the sweat of your brow but you must mix brains with guts to get the gravy.

The cost of railroading, has spiraled upward without a break since 1939. That year the carriers paid out $3,406,000,000 for wages, supplies, taxes and other costs—and by 1946 their operating expenses were $7,008,000,000 or about 106 per cent above the 1939 level! Revenues increased about 91 per cent between 1939 and the present but the money paid out by the roads increased by 106 per cent.

The Government's return on sales of surplus property sagged to 18c on the dollar in May, the War Assets Administration reported. The figure is a "new low in recovery rate," WAA's monthly report said. It compares with a 34.3c average recovery since 1944, when the disposal program started.

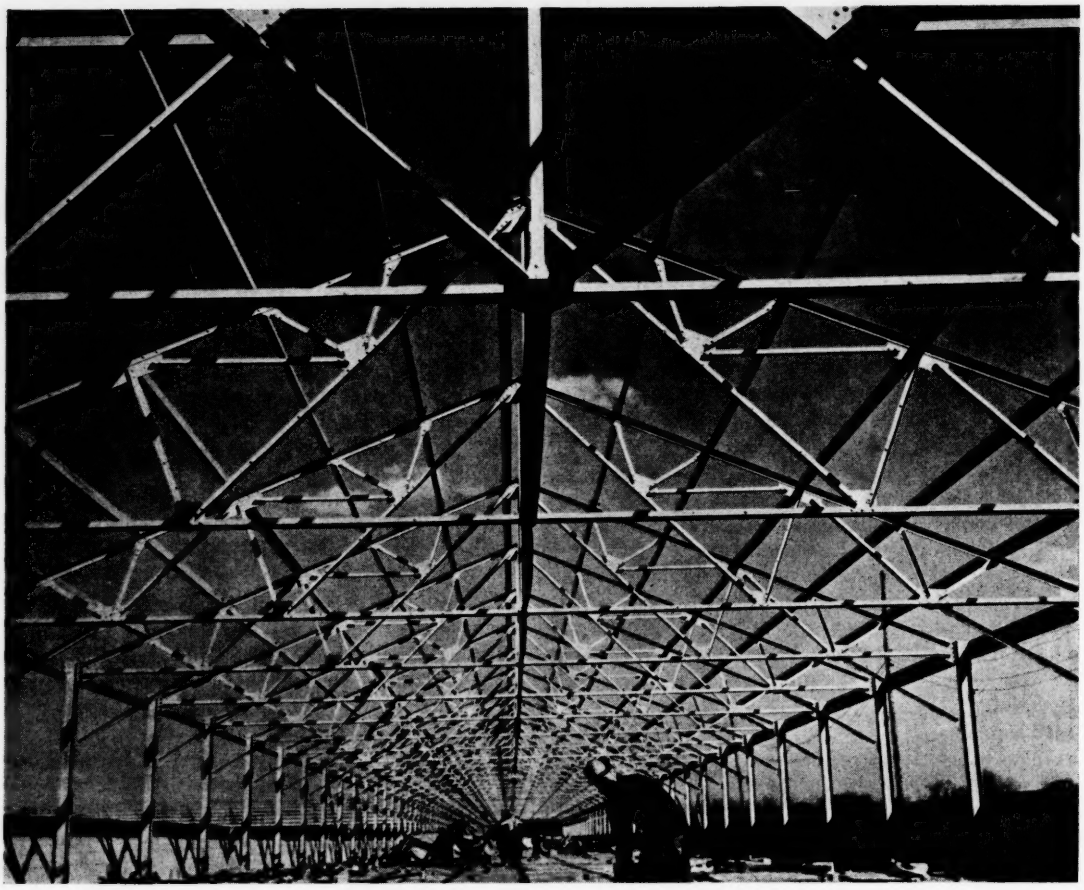
There is no doubt but that under the Wagner Act, a substantial conspiracy existed between the Conciliation Service and the NLRB. A labor leader would arrive in town from nowhere. When employers refused to negotiate with him as the agent of the employees, the organizer would cite a "labor dispute" to the Conciliation Service. The federal conciliator would hasten to town, talk around for two or three days, and then certify a labor dispute to the NLRB. From that point the whole rigamarole of NLRB procedure inevitably unwound. By no other device, even the Wagner Act, could many of these situations have been dragged before the NLRB. In a very real sense the Conciliation Service acted merely as the agent of itinerant CIO organizers. Yet all this was accomplished in the name of promoting wholesome and harmonious industrial relations.

By making league with the Henry Wallace crowd on both the tax veto and the labor bill, President Truman has forfeited his leadership of many substantial and influential Democrats in Congress. His petulant mood was attributed by associates to the persistent prodding of Wallace and the Progressive Citizens of America, the new political movement set up by Leon Henderson, Wilson Wyatt, and the CIO to act as trustee in political bankruptcy for the New Deal. When a delegation of Democratic national committeemen and state chairmen from the South called at the White House June 19 to urge approval of the bill, President Truman expressed sharp impatience. To Col. Marion Rushton, of Montgomery, Ala., the Chief Executive indicated that the delegation had considered only one side of the problem. He did not tell his callers of his intention to veto the measure, although the veto message then was in the mimeographs.

A report from the Labor Department reveals that 1946 brought a new all-time record in strikes and work stoppages in the U. S.—a total of 4,985 strikes, involving 4,600,000 workers in lost time aggregating 116,000,000 man-days. The average duration of each strike was 24.2 calendar days, against an average duration of 9.9 days in 1945. Such was the backdrop of industrial turmoil in the critical days of reconversion which called forth from Congress the historic Labor-Management Relations Act of 1947.

Prior to 1946 our greatest annual loss in strikes was 38,000,000 man-days in 1945. Prior to that, the record was in 1937, the year of the CIO sit-down

(*Continued on page* 18)



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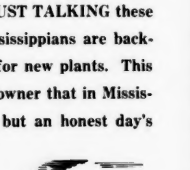
Mississippians

ARE INVESTING CASH TO BUILD NEW PLANTS

We Mississippians are ready to talk at the drop of a hat and convincingly about the abundant resources, ideal location, year-round good climate, friendly labor and many other assets of our state. But Mississippians are NOT JUST TALKING these days, they are acting. Under BAWI, Mississippians are backing up their talk with "cash on the line" for new plants. This kind of talk is convincing many a plant owner that in Mississippi he can expect not only cooperation but an honest day's work for an honest day's pay.



Mississippians are NOT JUST TALKING, they mean it, when they invite you to Mississippi. Why not investigate Mississippi's plan personally? Bring the family along, get away for awhile, and combine business and pleasure in a restful vacation.

Ask for a confidential report on Mississippi's industrial opportunities.

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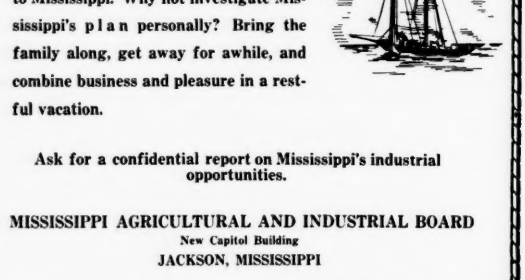

MISSISSIPPI
★ THE BAWI STATE ★

(*Continued from page* 15)

rampage in Michigan and Ohio.

Below are official figures on total strikes in the U. S. for typical years since 1928:

Year	*Total Strikes*	*Workers Involved*	*Man-Days Lost*
1928	604	314,000	12,600,000
1933	1,695	1,170,000	16,900,000
1937	4,740	1,860,000	28,400,000
1941	4,288	2,360,000	23,000,000
1944	4,956	2,120,000	8,720,000
1945	4,750	3,470,000	38,000,000
1946	4,985	4,600,000	116,000,000

Totals for the first half of 1947 will be published soon. Thus far we know only that the number of strikes during the first six months of this year was greater than for the same months of 1946.

Through the record strike epidemic of 1946, the labor unions assured enactment of the Taft-Hartley law.

The Taft-Hartley law is a mild measure, most of the stronger provisions of the original bills having been eliminated or drastically modified before passage. But the unions have already launched a concerted attack upon the law. Suits are being prepared to test its constitutionality. Coal miners are walking out in protest strikes to demonstrate that the act cannot assure peaceful industrial relations. A campaign is being organized to pressure Congress to repeal the law forthwith.

These are dangerous tactics for labor to follow. To the extent that they succeed, they will only serve to demonstrate that the unions are more powerful than the Government of the United Staes. We may be sure that the present Congress will not surrender supinely to any such pressure. Rather, it will proceed to draft a law that will stand up and correct abuses in the labor movement, however more drastic its provisions must be.

President Truman has appointed three committees to study the "strain on the American economy" which our foreign loans and gifts must necessarily impose. What segments of our society are going to pay for this strain? Wage workers cannot safely support foreign lending and at the same time demand higher rates of pay. Farmers cannot reasonably favor external credits and also work for constantly rising prices for their products. Manufacturers cannot encourage foreign credit extension while they seek to limit imports by blocking downward tariff revision.

If you haven't read the following by Thurman Sensing, director of research for the Southern States Industrial Council you will want to do so:

Having covered much of the best and richest soils in the valleys of the Tennessee River and its tributaries with its dams and backwaters, the TVA natur-

(*Continued on page* 21)

(*Continued from page* 18)

ally went into the fertilizer business—something was desperately needed to make more food grow on the lands that were left.

It is now the stated purpose of the TVA to go more and more into the fertilizer business. A bill has been introduced into the Senate for the establishment of a national soil fertility policy and program, which includes among its provisions the immediate construction by the TVA of a plant at Mobile, Alabama, for the production of phosphatic fertilizers, and the acquisition by TVA of Florida phosphate lands to furnish a reserve of phosphate rock for use in this plant. At least half the output—and perhaps all of it—must be used in the TVA's test-demonstration program; in other words, given away. This is patently nothing more than another dose of subsidization, another form of the opiate which deludes the recipients into believing they are getting something for nothing.

If the "flood control" provision of the TVA act can be interpreted to authorize the TVA to take over the electric power business of the area, and the "agricultural development" can be interpreted to permit the TVA to go into the fertilizer business—with which private fertilizer business can no more compete than could private electric business—then the "industrial development" provision of the act could be interpreted to authorize the TVA to go into any sort of manufacturing business or banking business or life insurance business or any other business which it may desire to control.

See page 40, *April Manufacturers Record and page* 48, *May Manufacturers Record*.—Editor

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In the years of its earlier development, soil conservation consisted primarily of terracing to protect against erosion. In more recent years, the program has been broadened to take in with terracing such procedures as strip cropping, cover cropping and crop rotation. Included in these practices for perpetual conservation are contour planting, cover-crop planting, crop residue management, terracing, drainage and irrigation systems, crop rotation, deferred grazing, stock tank installation, woodland conservation, stubble mulching, strip-cropping, spring and well development, gully treatment, pasture planting and other measures that are suitable to special situations.

Speaking for the Maritime Commission, George E. Talmage, Jr., chairman of its Domestic Shipping Committee, asserted that last year, during all of which the intercoastal trade was operated by the Government, "not one voyage broke even, not even when the vessels were loaded to capacity. It must therefore be obvious why private capital has not invested in these services and why the Maritime Commission has been compelled to seek emergency relief to enable it to withdraw from Government operation without a complete breakdown of intercoastal service."

Mr. Talmage blames this situation on "the cumulative effect of years of progressive reductions in competitive rail rates." It seems strange that the stranglehold on intercoastal shipping held by communistically dominated unions is not even mentioned.

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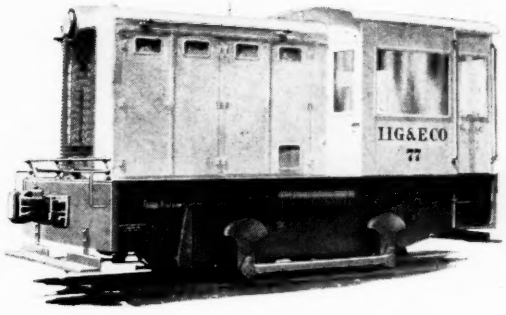

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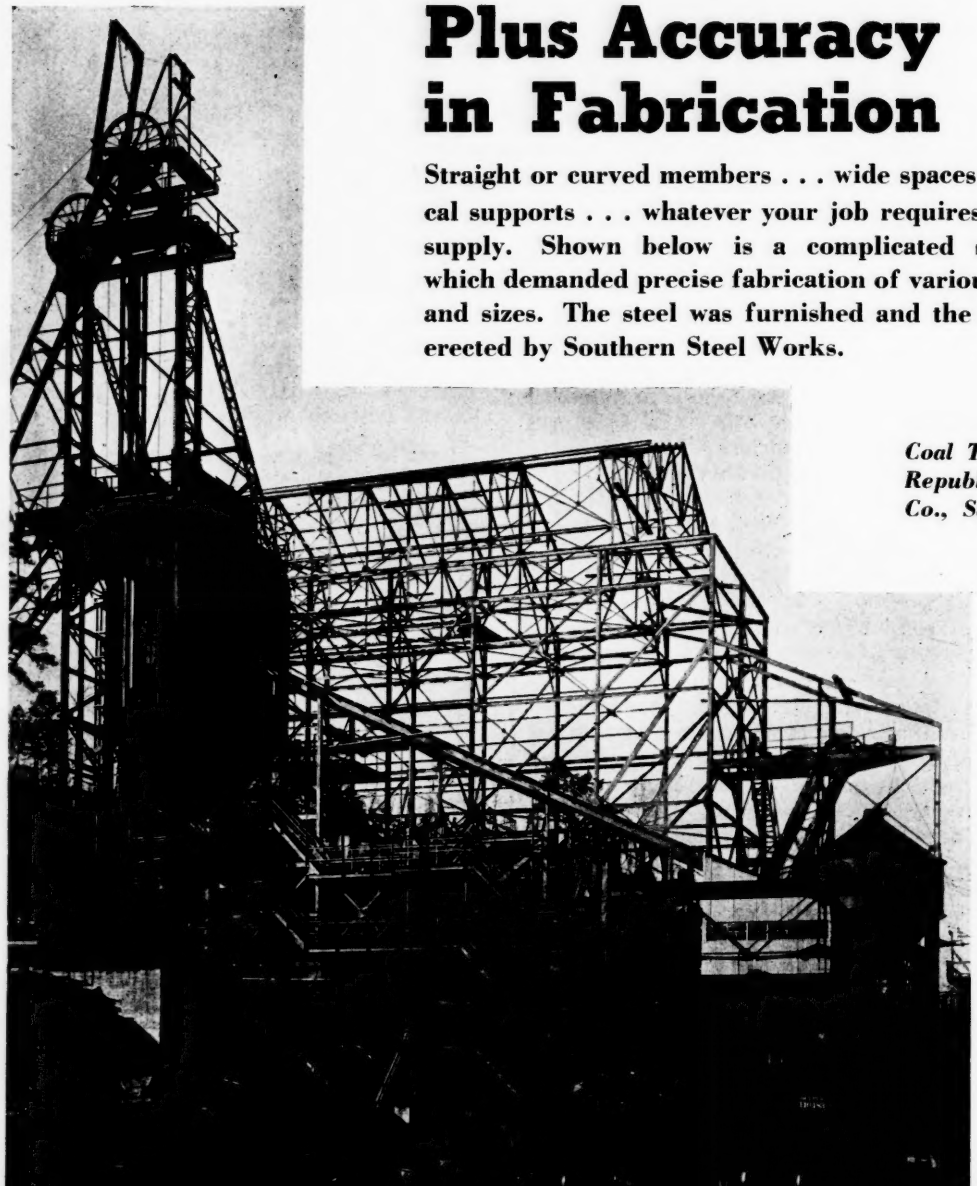

Coal Tipple for Republic Steel Co., Sayre, Ala.

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"What Enriches the South Enriches the Nation"

MORE THAN ANOTHER MILESTONE

"When in the course of human events, it becomes necessary—"

It is always fitting on the anniversary of the signing of the Declaration of Independence to give thanks to our forefathers who pledged their lives, their fortunes and their sacred honor when they affixed their names to that historic document. It is also fitting this year that we give thanks to the overwhelming majority of our elected national representatives for their clear sighted patriotism in restoring individual independence to trade union members. This freedom was taken from them surreptitiously by the Wagner Act under the guise of promoting interstate commerce.

We should also give thanks to these same members of Congress for their courage in withstanding the emotional tidalwave raised by the most vicious and untruthful campaign of propaganda that this country has ever seen. This was a disgraceful exhibition which out-Goebeled Goebels at his worst. It was a shameful show staged for the most part by unscrupulous men seeking to retain their command over helpless people whose livelihood they sought to subordinate to the insatiable demands of their already well filled pockets.

It should be timely for all of us, especially those who are union members and who now have an opportunity to express themselves, by secret ballot, and without fear of reprisal, in the democratic management of their unions, to recall some of the words written in 1776 and to realize again that this living document is the cornerstone on which rests everything that makes our way of life possible:

"Prudence—and all experience hath shown, that mankind are more disposed to suffer, while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations, pursuing invariably the same Object evinces a design to reduce them under absolute Despotism, it is their right, it is their duty, to throw off such Government, and to provide new Guards for their future security."

Americans are still patient and trustful. We have an inherent sympathy for the under-dog. This, next to loyalty, is our most lovable national trait. David, not Samson, is our old testament hero. But he is David, the shepherd boy, not David the king.

In the not distant past we had this same sentimental feeling toward organized labor. We felt sorry for the old and young who toiled for their pittance in attic sweatshops. But this sympathy did not justify transferring the whip from the right hand to the left. It did not justify herding human beings like sheep into a common pen where they lost their identity as individuals and became the much publicized and never defined "common man," a thing without face or soul, a fictitiously nebulous figment of the Rooseveltian imagination of a social inferior.

Now there is no longer a social inferior nor an economic one. A man in any walk of life is the master of his own destiny. Independence Day is well worth celebrating this year.

A New Beginning In Labor Relations

by
Lawrence Sullivan

DESPITE voluble protest and denunciation from Communists and fellow travelers, the new Management-Labor Relations Act of 1947 marks a timely and salutary fresh start in American industrial policy. The era of the Wagner Act is over and gone—buried beneath a tide of public indignation and revulsion such as seldom sweeps free America.

Under the new law, labor takes its place as an accountable entity in the body politic. It must live up to its contracts. It may not sabotage production without the risk of legal penalty. It may not support political campaigns without a public accounting. In a word, organized labor is now answerable under law for most of the code which normally governs good relationships between individuals—fair dealing, honest public accountability, and full contractual responsibility. An unhappy era of labor excesses, racketeering, lawlessness and violent political usurpation is at end. Communism is outlawed in the ranks of honest American trade unionism. For the first time in American history, the rights of individual minority members within a labor organization are protected by federal law — protected against excessive dues and fines, against unwarranted expulsion, against strikes and work stoppages called by secret powers without an expression from the workers themselves.

In a very real sense, as demonstrated by seven roll calls in the Senate and four in the House at various stages in the legislative process, the new measure is a non-partisan achievement—a genuine expression of the deep-rooted American instinct for the fair deal. On the final vote to override the Truman veto in the House, for example, only 71 Democrats sustained the President, while 106 voted to override.

Closed Shop Outlawed

The closed shop, under which employers may hire workers only from the ranks of accredited union members, is outlawed. The new Management-Labor Relations Board may not prescribe a closed shop as a condition of a contract settlement. However, the union shop, in which all employees must remain union members in good standing, still is permitted, but only when agreed to by the employer and accepted by a majority of the workers involved. This provision is further limited by a section which provides that union membership may not be required or specified by the Federal Board as a condition of employment in violation of any State or Territorial law. This section of the new law re-establishes the broad and salutary principle of State's rights in every major aspect of industrial policy. Under the Wagner Act, the dicta of the NLRB, in many instances, ignored or set at naught the basic provisions of state enactments. Now, States may set up and enforce their own labor codes, with reasonable assurance that the federal government will not ride rough-shod over them with bureaucratic rules and regulations from Washington.

Another pivotal section of the new statute provides full rights of review and appeal as recourse against all rulings and decisions of the NLRB. Moreover, a wide area of abuse is eliminated by the new requirement that all Board hearings and proceedings must be conducted "in accordance with the rules of evidence applicable in the District Courts of the U. S. . . ." In other words, the old days of NLRB joyrides with union "evidence," which no court in the land could admit, are gone forever—no more smearing and bludgeoning of the employer with the impassioned tirades of labor organizers, presented in the documentary form of legal briefs. The new board must base its decisions on *evidence*, not on the stump speeches of unioneers.

Curbs on Labor Lawlessness

The fundamental uprooting of the crackpot ideas which underlay the supplanted Wagner Act is found in that section of the new law which sets forth in binding legal definition no less than sixteen "unfair labor practices for a labor organization or its agents." This vital language of Section 8 (b) makes labor organizations accountable before the law, and entitles the employer to seek legal redress against violation of contract, illegal strikes, slow downs, failure to bargain in good faith, against boycotts, injury from jurisdictional strikes, and physical sabotage of plant or materials.

A related section provides that no alleged unfair labor practice may be cited before the NLRB after a lapse of six months. Under the free-wheeling procedures of Wagner Act days, labor unions frequently went back as far as thirty years to cite an unfair labor practice. In one memorable case before the now lifeless NLRB cheka, a union went back thirty-seven years—to 1907—to cite a violation of the Wagner Act, as passed in 1935! And this "evidence" was admitted without question by the honorable Board.

Every chartered labor organization must file with the Secretary of Labor full copies of its constitution and by-laws, together with a statement revealing the compensation of all officers receiving more than $5,000 a year. Annual financial reports also are required covering receipts and expenditures of all union funds.

In addition, every registered officer of a labor organization must file an affidavit once a year "that he is not a member of the Communist Party . . . or a supporter of any organization that believes in or teaches the overthrow of the United States Government by force or by any illegal or unconstitutional method." This section provides that employers may not be compelled to negotiate with unions whose officers are identifiable as Communists or fellow travelers.

Feather-bedding (the costly make-work rules so often enforced by union rules) is defined as an unfair labor practice. The legal definition of feather-bedding is pay "for services which are not performed or not to be performed." Section 8 (6).

Free speech is protected by a provision which says no expression of views, argument or opinion, written or printed, can be an unfair labor practice "if such expression contains no threat of reprisal or force, or promise of benefit."

Labor organizations may be sued for violation of contract, as provided in Section 301 (a).

Boycotts by labor organizations are unlawful, and unions may be sued for damages flowing therefrom. This restores a natural equity in the law which has been missing since the celebrated *Danbury Hatters* decision forty years ago.

Jurisdictional strikes also are unlawful, and are subject to damage actions by the employer.

Strikes by employees of the U. S. Government, or government corporations, are unlawful.

Slow-Downs Outlawed

Sit-downs or slow-downs, favored devices from the Communist book of tactics, are catalogued baldly as strikes. Title V broadens the definition of strike to include "any concerted slow-down or other concerted interruption of operations by employees." Such action violates a contract forbidding strikes.

Employers are not required to deal with labor unions composed of their own foremen or supervisors. Foremen are free men. They may join labor unions, but in their capacity of union members they enjoy none of the protections of the federal statute covering rank-and-file workers.

Substantially the same provisions apply to professional employees, as engineers, chemists, physicians, nurses and technologists of recognized academic qualifications. Nor may supervisors or professional employees be grouped in bargaining units with non-professional workers. These two provisions, protecting Management in its essential functions of organizing, directing and supervising production, are among the most significant and important sections of the new law.

The treacherous abuses of the Labor Department's Conciliation Service, which often intervened in labor disputes merely for the purpose of getting the case before the NLRB, are curbed by the re-creation of the service as a new agency, apart from and independent of both the Labor Department and the NLRB. The new law specifically forbids the Conciliation Service to certify a dispute to the Board for inquiry. When it has exhausted its offices as mediator, its function is ended, and the parties continue free to exercise their rights under the law.

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Disputed Regulation "W" Due For Change

Most Bankers Against Rule, Federal Reserve Head for Action by Congress

by

S. A. Lauver

REGULATION W, the much disputed Federal Reserve rule under which automobiles and some household appliances are subject to a one-third down payment and others to a one-fifth down deposit, with repayment required in both cases within fifteen months, last month was the focal point of attack by American bankers before the House of Representatives Banking and Currency Committee, which is considering legislation designed to continue consumer instalment credit restrictions now based on executive order.

The issue, as viewed by the American Bankers Association through Kenton R. Cravens, vice president of the Mercantile-Commerce Bank and Trust Co., St. Louis, Mo., a member of the Association's Credit Policy Commission, is "whether Congress should extend the qualitative credit controls of the Federal Reserve Board or confine these powers to purely quantitative controls and other credit controls now existing, such as authority to charge the discount rate, required reserves, open market operations."

"No one argues that our central banking authorities should not have the power to regulate the overall supply or volume of credit to level booms and depressions," he said, "but the power to dictate the use of credit is altogether another and dangerous thing." To subscribe to the theory of selective controls means complete bureaucratic control over business," he emphasized, and "such power is too great to delegate to anyone or any group of any government."

An official of the Consumer Bankers Association, which until last fall was known as the Morris Plan Bankers Association, had previously taken a similar position that the "issue is solely whether or not this type of credit should be regulated by Federal Government authority." The official opinion of the group, presented by Gary M. Underhill, its executive director, is that "regulation of consumer credit by Federal authority is unnecessary, ineffective, un-American, unsocial, inconsistent and impractical."

From the banker's point of view, regulation of consumer credit is unnecessary "because no banker in his right mind is going to permit unsound or unreasonable terms, either directly to the purchaser or in discounting dealer paper, or even so indirectly as through the finance companies whose paper the larger banks purchase. It is axiomatic that the smaller the down payment on consumer durable goods, for example, the faster the obligation must be liquidated for the banker to maintain a proper equity ratio in the underlying collateral which is subject to depreciation from use and age.

"It is a simple matter of arithmetic that the smaller the down payment, and the shorter the maturity, the larger monthly payments it will take out of the purchaser's income to pay off the obligation in a given period of time. The banker does not need Federal or any other kind of regulation to take care of that. We submit that there is no evidence to indicate that such regulation is necessary from the point of view of either the banker or the citizens of this country as a whole."

Some individual bankers take the position that from the time the regulation was issued up to the present there has been no real need for such control and that it is particularly objectional because it is a form of selective credit restraint.

One banker, for instance, minimizes the importance of the "W" rule and says that there are other matters which have more to do with the soundness of the economic structure. The disposition of the Federal Reserve Board to emphasize things like Regulation W rather than to adequately deal with these more important fiscal problems indicates, in his opinion, a sensitiveness to political considerations which should make the country slow in giving the Board further powers.

One prominent consumer credit banker, Alexander E. Duncan, chairman of the board of Commercial Credit Company, of Baltimore, however, has reversed his view of advocacy of complete abolition of Regulation. He holds, however, that controls must be properly administered. Credit regulations are needed for the health of the lending business, he stated, at the same time criticizing what he called the "arbitrary methods" of the Federal Reserve Board in its administration of credit controls, but still believing that the Board is the best agency to get the results desired.

Marriner S. Eccles, chairman of the Board of Governors of the Federal Reserve System, just a few days before told the House Banking and Currency Committee that he was convinced from experience "that consumer credit regulation should be directed to the volatile sector of consumer credit, that is instalment credit," which he described as "the part which has been subject to the greatest fluctuations in the past, thus contributing to instability and unemployment."

Regulation under the proposed legislation, he explained, would be in about the same form and scope as that now effective through Regulation W. In his words, it would "with appropriate exceptions to provide administrative flexibility, prescribe maximum maturities for all types of instalment credit and in addition would prescribe minimum down payments for instalment credit to finance the purchase of important categories of consumers' durable goods."

Referring to the fifteen-month repayment period and the at least one-third down payment of Regulation W, Chairman Eccles said under the proposed legislation the terms would be varied from time to time depending upon changing economic conditions, "but with a view to restraining the development of unsound credit terms and with a view to preventing or reducing excessive expansion or contraction of consumer instalment credit which is that sector of consumer credit subject to the widest fluctuation. These would be the declared statutory objectives."

Despite shortages of goods, particularly in the durable lines, and regulation of consumer credit, Mr. Eccles revealed that instalment credit has expanded in the past twelve months by more than $2,000,000,000. "The economic effect of adding borrowed dollars to current income," he declared, "together with the unprecedentedly large volume of savings in the hands of the public generally, can only be to prolong the period of inflated prices. The premature relaxation of restraints, or their complete removal, would make no more goods available. It would only help to hold prices high in the marketplace."

The need for regulation is not a temporary need, the Federal Reserve Board official maintained, and the Board feels that such regulation of a selective character serves a useful purpose which cannot be reached by the exercise of any powers over bank credit in general. The reglation would be a supplement to general credit control powers, as "overall restraints to the sources of bank credit have, under existing conditions, lost much of their effectiveness."

Mr. Cravens read into the record the policy declaration of the American Bankers Association as issued by its executive council April 15. This reads:

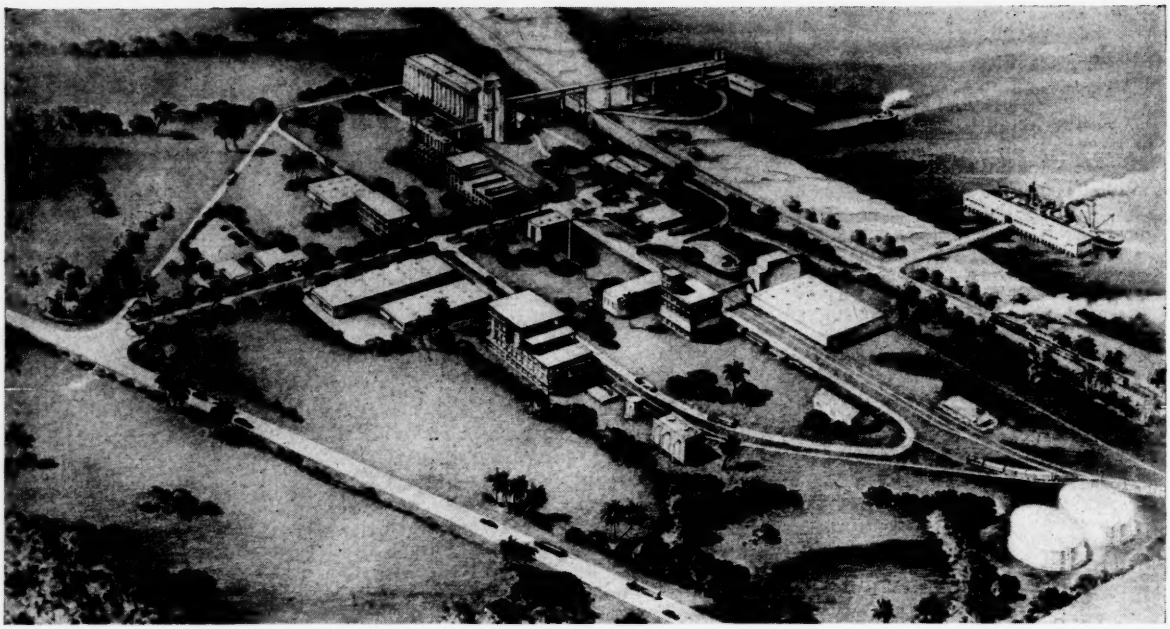
"During the emergencies of the depression and war, a number of new methods were employed to finance business, including direct lending by the government and government guarantees of loans. With the coming of peace and a return to more normal conditions, these special financing methods need reconsideration because they present several serious dangers.

"Loans and loan guarantees by governmental and semi-governmental agencies are in reality subsidies favoring certain groups of borrowers. They impose a further burden on the taxpayers at a time when the government's budget must be drastically reduced and they encourage unsound and inflationary lending.

"In the interest of the national economy, this association continues to oppose further extension of governmental or semi-governmental lending or guarantee of loans and favors a drastic reduction of the government's wartime and emergency powers.

"The country's banking system and

(*Continued on page* 68)



Above—Corn Products Refining Co. is erecting this $10,000,000 plant at Corpus Christi, Texas, where dextrose, starches and high protein livestock feeds will be produced from milo maize. H. K. Ferguson Co., of Cleveland, are the engineers and builders.

Southern Contract Value Still Rising

June Total $194,836,000—Six-Month Figure Hits $867,481,000

SOUTHERN construction contract values as reported in the *Daily Construction Bulletin* rose for the second consecutive month in June when the $194,836,000 monthly figure showed an increase approaching six per cent to bring the six-month total to $867,481,000.

Private and government building and highway and bridge construction reaching the contract stage were major factors in the June rise, with percentage increases ranging from thirty-nine per cent for private work to a seven per cent increase in road contract value.

Private building in June—the total was $53,503,000—showed the highest valuation since this time last year. During that month the total was $56,143,000. Residential building a year ago was valued at $47,903,000. In the current June, it amounted to $44,067,000.

The June 1947 government building total was also the highest in many months. Not since October of 1944, a month when such work reached $79,094,000, has the valuation for government-initiated building surpassed the current June's $36,263,000.

Road and bridge construction contracts in June also reached a peak valuation. The total was $41,535,000. April, 1946, was the last month when highway construction valuations were higher. In that month the total was $51,871,000.

With the rise in residential construction, other categories of private building also showed strength. The June total for assembly buildings such as churches and theatres was $2,616,000; commercial projects, $3,471,000; office type structures, $3,349,000. All were above the figures for the preceding month.

School construction constituted the larger part of the public building total. The figure for such educational structures in June was $27,447,000, while $8,816,000 of the entire public building total of $36,263,000 was for the usual federal and local government projects. No housing projects as such were recorded during the month.

Mississippi, Louisiana and Texas, all bordering the Gulf, registered the highest totals in highway construction. Texas, as usual, led the group with a total of $7,366,000. Louisiana was second, total $5,743,000; Mississippi, third with a total of $5,438,000. Georgia, Kentucky, Missouri

South's Construction By Types

	June, 1947		Contracts Awarded First Six Months 1947	Contracts Awarded First Six Months 1946
	Contracts Awarded	Contracts to be Awarded		
PRIVATE BUILDING				
Assembly (Churches, Theatres, Auditoriums, Fraternal)	$2,616,000	$9,320,000	$10,224,000	$16,996,000
Commercial (Stores, Restaurants, Filling Stations, Garages)	3,471,000	8,401,000	22,883,000	43,423,000
Residential (Apartments, Hotels, Dwellings)	44,067,000	22,724,000	126,768,000	158,018,000
Office	3,349,000	5,095,000	20,121,000	12,087,000
	$53,503,000	$45,540,000	$179,996,000	$230,524,000
INDUSTRIAL	$28,429,000	$66,265,000	$214,281,000	$204,513,000
PUBLIC BUILDING				
City, County, State, Federal and Hospitals	$ 8,816,000	$35,710,000	$65,177,000	$80,808,000
Housing	.....	.....	.....	966,000
Schools	27,447,000	57,394,000	80,878,000	49,661,000
	$36,263,000	$93,104,000	$146,055,000	$131,435,000
ENGINEERING				
Dams, Drainage, Earthwork, Airports	$28,030,000	$32,235,000	$108,200,000	$120,006,000
Federal, County, Municipal Electric	884,000	9,936,000	10,282,000	18,345,000
Sewers and Waterworks	6,192,000	21,749,000	30,822,000	27,091,000
	$35,106,000	$63,920,000	$149,304,000	$165,442,000
ROADS, STREETS & BRIDGES	$41,535,000	$31,848,000	$177,845,000	$175,934,000
TOTAL	$194,836,000	$300,677,000	$867,481,000	$907,848,000

and North Carolina all showed figures above the three million dollar mark.

The six-month total of $867,481,000 is about four per cent below the $907,848,000 for the comparable figure for the first six months of last year. Industrial contract valuations, while down in June, is the strongest for the six months. The total is $214,281,000, as compared with the $204,513,000 for the first half of 1946.

Other categories, in the order of their dollar value, are private building, $179,996,000; highways and bridges, $177,481,000; engineering construction, $149,304,000; public building, $146,055,000.

Private residential building so far this year is valued at $126,768,000 in the South. Last year at this time the total was $158,018,000. School building for the elapsed period of this year is valued at $80,878,000 as compared with the $49,661,000 for the same type of work in the similar period of last year.

Criticism of house building regulations continues. The National Association of Home Builders, however, supports the Federal Housing loan insurance program, having this to say about the cut made in the budget for such operations. "This action by the Committee was most unfortunate since FHA is taking up an enormous work-load, one far exceeding anything in its history."

The Producers' Council, national organization of building material and equipment manufacturers, believes that removal of limitations on repair and maintenance of homes, stores and most other structures will mean a substantial rise in construction activity and increased employment for building trades workers, setting the number of jobs required for construction and allied workers at approximately 2,000,000 annually.

The Council takes the position that "Thousands of property owners have been waiting for the opportunity to undertake major repairs and improvements which had to be postponed during the war and the period of limitations.

"Recent reports from the Office of the Housing Expediter indicate that requests for approvals in excess of the limitations had been coming in at the rate of about 20,000 a week during recent months. Removal of restrictions means that these projects can proceed at the discretion of the owner.

"Estimates by the Council's economists indicate that in the absence of restrictions the volume of repair and maintenance will run at the rate of $6,000,000,000 annually for several years, in view of the huge backlog of needed improvements built up as a result of past materials shortages and wartime limitations.

"The removal of limitations means that owners of industrial structures can repair and enlarge their buildings, and home owners can proceed with installation of new kitchens, bathrooms and heating plants, adding extra rooms, insulate their homes, reroofing and other major improvements."

South's Construction By States

	June, 1947		Contracts Awarded First Six Months 1947	Contracts Awarded First Six Months 1946
	Contracts Awarded	Contracts to be Awarded		
Alabama	$2,941,000	$7,932,000	$23,925,000	$23,579,000
Arkansas	284,000	8,196,000	31,572,000	15,996,000
Dist. of Col.	5,312,000	1,624,000	26,296,000	9,598,000
Florida	19,493,000	17,151,000	93,970,000	121,900,000
Georgia	10,015,000	13,584,000	87,767,000	70,546,000
Kentucky	4,402,000	3,757,000	13,662,000	37,230,000
Louisiana	12,487,000	50,996,000	47,563,000	43,573,000
Maryland	15,471,000	17,093,000	63,655,000	83,123,000
Mississippi	10,636,000	17,443,000	42,303,000	46,634,000
Missouri	21,870,000	5,034,000	33,730,000	24,432,000
N. Carolina	12,982,000	13,781,000	34,830,000	43,863,000
Oklahoma	4,401,000	4,655,000	15,429,000	38,460,000
S. Caroling	4,114,000	8,904,000	25,738,000	36,536,000
Tennessee	2,177,000	10,238,000	20,603,000	34,635,000
Texas	45,892,000	100,927,000	256,393,000	247,822,000
Virginia	8,361,000	14,993,000	27,904,000	19,673,000
W. Virginia	13,998,000	4,369,000	22,141,000	10,248,000
TOTAL	$194,836,000	$300,677,000	$867,481,000	$907,848,000

The Office of the Chief of Engineers announced late last month that alternate type bids will be allowed for veterans' hospital construction. The first will be the prime, or overall bid embracing the entire job and the second will permit the job to be broken down into seven separate contracts.

Under the system the district engineers will ask for bids on the main building less the mechanical and electrical work and elevators; the mechanical work within the main building; electrical work within the main building; elevators; separate buildings or groups of related buildings at neuropsychiatric hospitals and similar installations not consisting chief of one building; auxiliary buildings such

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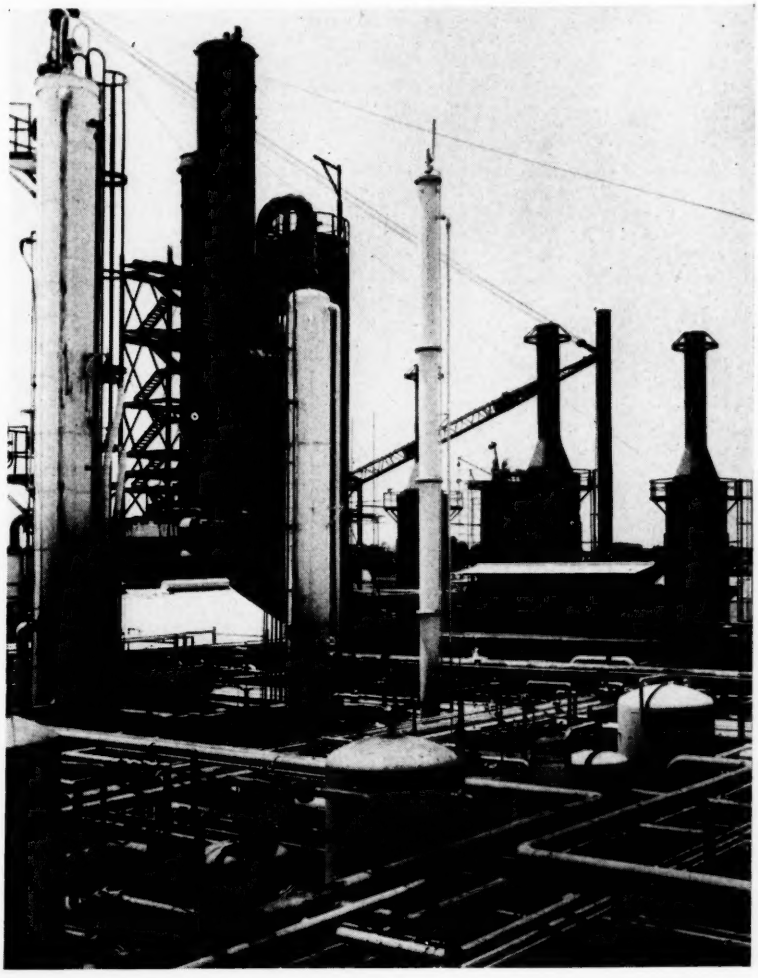


Right—View looking west over the El Dorado, Ark. gas plant of Lion Oil Co. with construction of the new 4,500-barrel daily Thermofor catalytic cracking unit in the background.

Southern Business Outlook

The Southeast

By JOHN MEBANE

Atlanta—Some leveling off in the general economic picture in this section of the Southeast appears indicated today, but any business slump remains in the offing.

There are about 30,000 Georgians currently receiving unemployment pay, according to Ben T. Huiet, state commissioner of labor, but the Georgia jobless average is well below that of the nation as a whole. For example, Mr. Huiet says, in this state 2.4 workers out of each 100 are receiving either unemployment compensation or veterans readjustment allowances, but for the entire nation this ratio is 3.7 for each 100 workers.

Except for the northern part of the state, there have been few mass layoffs in Georgia. These northern section layoffs have resulted from a slump in the chenille industry which, in turn, stems from a currently glutted market. Mr. Huiet estimates that in that section about 5,000 persons are out of work. Much of this is attributed, however, to the fact that numerous small, so-called "fly-by-night" chenille establishments sprang up during the war, seeking quick profits, and then folded. The established segment of this industry believes the weeding out process will be good in the long run for the chenille industry as a whole.

Mr. Huiet termed the current layoff picture "encouraging," especially in view of the fact that about 75,000 persons were laid off with the closing of numerous war plants in this state, coupled with the fact that an estimated 310,000 veterans returned to Georgia after discharge from war service.

Meanwhile, the Federal Reserve Bank of Atlanta reports that there are still pools of surplus labor in many smaller communities in the Sixth Federal Reserve District and adds in its Monthly Review: "To complicate this picture, in some towns the serious underbalance between employment of men and women workers may mean that changes in the social structure are in the making. In some smaller communities the women are employed in the town's sole industry, an apparel factory or canning plant, while the men keep house and seek work."

However, the bank adds this encouraging note: "During the last three months of 1946 the number of new and enlarging businesses was growing faster in Sixth District states than in the rest of the country. There were 53,931 employes subject to unemployment compensation laws in district states on October 1, and three months later there were 56,282, an increase of 4.4% against a national increase of only 3.4%."

The Monthly Review continues with this comment:

"Apparently the difficulties which beset new business are still making many small-town development groups hesitant about encouraging local enterprises, and many groups are still relying on the hope that some outside firms will solve their unemployment problem. The major traditional difficulty facing new business — that of raising capital — no longer seems, however, to be as important as it once was."

The bank said that apparently banks in the district have made "substantial loans to new firms," pointing out that since near the latter part of last year about one-third of the dollar-volume of loans to small manufacturing enterprises had been made to firms established in the preceding five years.

The Federal Reserve Bank economists contended that the major reasons local enterprises are not given more encouragement by development corporations and organizations may be "a lack of confidence in local managerial talent as well as the feeling that enough experienced workers are not available to staff a successful concern."

On the other hand, development corporations in a variety of Georgia cities are reporting almost daily the establishment of new enterprises, the majority of them locally-owned and financed and manned by local labor.

As for trade, the bank reports that an estimated $44,000,000 worth of goods was sold in district department stores during April to bring the seasonally-adjusted index of district department store sales to 353% of the 1935-39 average, compared with 346% in March.

As for agriculture, the boll weevil is threatening cotton farmers to a greater degree than it has for several years, and concerted efforts are under way to eradicate the menace before it damages the current crop too much. Farm labor is in short supply and wages now range from $3 to $5 a day, way above the prewar levels of about $1.50 to a top of $3 a day. There is a definite shortage of farm labor, and much grain already has been lost as a result of this in Georgia. Cotton picking may suffer too, for the same reason.

Meanwhile, new industries continue to crop up over this area. Recently, the big Clark Thread Company announced it was removing all of its operations from New Jersey to Georgia, chiefly because of better labor conditions in this section. But there is even more encouragement in relatively small, locally-owned industries which are springing up all over Georgia.

Birmingham District

By R. W. KINCEY

Birmingham—This industrial district moved forward on three significant fronts during the month.

Came announcement, after many months of negotiations, careful planning and a growing realization of the urgency of the need, of a $30,000,000 newsprint plant at Childersburg.

Even more spectacular if no more important is the plan of the Birmingham Chamber of Commerce to acquire and outfit a Maritime Commission craft as a display ship of Alabama-manufactured goods; a plan which is moving forward with surprising momentum, and which has completely captured the fancy of a cross section of the state's populace.

A third heartening development was actual start, at Gadsden, on the Alabama Power Company's new $12,000,000 steam plant there.

These, together with well-filled industrial order books—a volume sufficient, on the basis of current prospects, to insure uninterrupted production well through 1948—have served to emphasize rather forcibly the growing conviction relative to the economic future of this producing section.

The newsprint mill comes as the culmination of an oft projected program in the South, dating back to the 1930's when it had its inception with the Southern Newspaper Publishers Association.

Actual construction is expected to start within a few months. It is hoped the mill, with an annual capacity of 100,000 tons, will be in production within two years.

Final barriers were hurdled when the Coosa River Newsprint Company and the War Department signed leases for part of the former Alabama Ordnance Works at Childersburg.

The company made outright purchase of 615 acres in the 18,000 acre federal reservation in Talladega County. It leased from the War Department a number of buildings, including a 25,000-kilowatt steam power plant and a water filtering and pumping station.

A five year lease was made with the War Department with seven optional five year lease renewals. Headquarters for the new mill will be in Birmingham.

The display ship project has been approved by the Maritime Commission. The Birmingham Chamber of Commerce and co-sponsors believe they will get an air-conditioned former hospital ship. Well laid plans have been perfected to finance the project through the state administration and cooperating industries.

The board of directors, Associated Industries of Alabama,

this week gave formal and official approval to the program which contemplates sending the ship to South America in November or December for a five- to seven-month tour.

In breaking ground for its new generating plant at Gadsden, the Alabama Power Company is making available to industry and prospective industry in this section a new source of energy which Thomas W. Martin, president, said would play an important part in the future of Alabama. It will substantially bolster the company's rural electrification program in the state.

Contract for 2,500 tons of structural steel for the power plant has been awarded to Ingalls Iron Works Company, Birmingham, one of the largest steel awards in the district in some months.

Increasing recognition of the indispensable nature of the district's industrial machine is evident in many quarters. Indicative is a move launched this week, and already gaining headway for a permanent display of Birmingham-manufactured goods. It is the suggestion of the Young Men's Business Club.

Already the club has sought permission of the L. & N. railroad to set up the display in the unused portion of that railroad's passenger station concourse. The plan contemplates, ultimately, that a permanent building, made to order for the purpose, shall be erected and maintained as one of the city's major attractions. Again business and industry had manifested more than passing interest.

One of Birmingham's comparative newcomers—Rheem Manufacturing Company, broke the ice with a new public-relations plan during the past month.

Rheem held open house at its North Birmingham plant June 16 and 17, the former day for white people, the second for Negroes. Several thousand adults were on hand both days to see how Birmingham raw materials are converted into finished consumer goods. It was the company's fifth anniversary celebration. It was characterized as one of the most interesting industrial events ever held in the city.

Production continues at a satisfactory rate in most endeavors. Car building at Bessemer will continue through the year and well into 1948 on the basis of current orders.

The same picture exists in cast iron pipe, in castings, in raw and semi-finished steel which means that the district's operating rate in steel holds consistently to its 99 per cent mark. The anticipated recession in steel is not evident in the foreseeable future.

Work has started on the first unit of the Southern Research Institute's new home. The institute has the largest backlog of sponsored research projects since its organization. It is regularly adding additional scientists to its staff.

The various technical organizations continue their activity. Announcement was made last month of the election of Dr. Wilbur A. Lazier, director of the Southern Research Institute, as chairman of the Alabama Section, American Chemical Society for 1947-48. He succeeds Dr. Russel L. Jenkins, Monsanto Chemical Company.

Announcement also has been made of the promotion of Charles S. Northen, sales manager of Sloss-Sheffield Steel & Iron Company since he joined that company two years ago, to vice president in charge of sales.

The district lost a valuable man in industrial circles June 17 with the death of Arthur J. Ribe, widely known rate expert and traffic consultant for a number of Alabama industries. Mr. Ribe died unexpectedly in his hotel room here.

Piedmont Area

By J. A. DALY

Charlotte—Contra-seasonal expansion of activity as the Summer doldrums arrive is somewhat mystifying Southeastern business and industry which, in military parlance, are concentrating attention on adjusting fire against rapidly moving, heavily camouflaged targets.

Caution is the watchword—everything that isn't clearly understood immediately is regarded as a potential indication of the recession. Nevertheless, this caution isn't proving a solvent for aggressiveness.

The prevailing idea as June approaches its close to usher in the year's second half seems to be that somewhere the recession has been sidetracked. Representative leaders here and there over the Southeast in practically every major phase of industry and business commented substantially in this vein: They are with confidence adjusting their policies against the known steady approach of revived competition.

Recession talk was rife over the Southeast during the greater part of May. Sentiment was little affected, however, and business confidence was unimpaired—but prices were sharply adjusted downward by most divisions of industry, except those related to steel and durable goods. In the latter days of May the word was being passed quietly around that recession talk was becoming out-of-date and that fundamental conditions had undergone definite change for the better.

Bank clearings records for Charlotte, N. C., a typical Southeastern city in an area of diversified business and industry, show clearly percentagewise the moderateness of the May recession. Here's the record:

Month	*Total Clearings*
May, 1947	$253,622,978
April, 1947	266,458,871
May, 1946	208,049,754
April, 1946	208,701,161

The process had been in progress some weeks, but it was in May that practically every larger industry in the Southeast really made outstanding progress in the elimination of more or less ersatz goods. This was a direct reflection of trade and consumer insistence upon quality merchandise and close pricing. At the same time, many prices were revised downward both at the manufacturer's and the retailer's levels.

Then came June, normally the beginning of a definite letdown for the Summer season. The Summer season has arrived on schedule, but the letdown's arrival is off schedule, at least.

This continuing good business isn't wishful thinking—it is reflected in dollars—bank clearings and the velocity of circulation. Commercial banks in Charlotte, for instance, have deposits totaling around $300,000,000.

Here are typical, recent Charlotte Clearing House Association reports on bank clearings:

Week Ended	*Total Clearings*
June 18, 1947	$76,908,521
June 18, 1946	67,908,144
June 11, 1947	57,691,053
June 11, 1946	53,309,539
June 4, 1947	65,785,415
June 4, 1946	54,841,035

The cotton textile industry, dominant in the two Carolinas and also over most of the Southern States, apparently has weathered the first post-war storm. This industry has reduced its prices irregularly, some of them rather drastically—and at a time when quality of production definitely was being improved and prices of raw cotton were persistently advancing.

As this is written, in the latter days of June, the cotton textile industry, admittedly somewhat unexpectedly, is finding itself involved in a steadily broadening revival of demand. With many weavers sold far ahead, this current demand is revealing shortages of goods for nearby replacement shipment and all along the line textile prices have been stabilized, some at levels substantially above recent lows.

Here follows another sidelight on Southeastern prosperity and optimism:

Revealing recently liberalized dividend policies, 24 cotton textile mill companies of the Southeast in a list of 60 companies, as of mid-June, had paid an average of $5.85 per common share during the preceding twelve months. This

(*Continued on next page*)

XUM

Southern Business Outlook

(*Continued from page* 31)

compared, as of Jan. 1, this year, with an average payment of $4.42 for the then preceding twelve months.

Only two issues in this list had indicated decreases in dividend rates. The other 26 common stocks were on an unchanged annual dividend basis averaging $3.21 per share.

Among manufacturers generally in the Carolinas, and apparently over much of the Southeast, their output volumes, prices and designs hereafter will be rather closely geared to fluctuations of consumer preferences and demand. Meantime, with the cotton textile industry generally all set for vacations, mostly of two weeks, during July, the over-all labor situation definitely is improving, though a few "sore" spots remain in widely scattered communities.

Incidentally, it may be reported that, fully typical of management's thinking, J. M. Broughton, war-time governor of North Carolina, recently declared in a public address: "Labor organizations need to develop a program for encouragement of production—too much of labor's planning is in opposition to management."

For those business men who are interested in details, here follow some authenticated "sidelights" regarding major phases of activity over the two Carolinas:

The number of bank checks cleared is increasing at a moderate rate, and the average amount is declining slightly, despite the increase in dollar value of total clearings for recent weeks.

Installment buying is expanding slowly, but dealers report that buying of household equipment, automobiles and other durable goods still is predominantly for cash.

As regards raw cotton, a "squeeze" in the spot market slowly tightened throughout June, reflecting the shortage of desirable qualities. Prospects for the new crop of cotton are favorable, but the acreage reported indicates that not more than 11,000,000 bales may be expected in the harvest next Fall. Mills' holdings of cotton in their warehouses lately totaled 400,000 bales less than a year ago while public storage held approximately 5,550,000 bales less than a year ago. Consumption of domestic cotton in American mills this year has been at a rate of 10,200,000 bales per year.

Prices of practically all cotton fabrics hardened in the latter part of June. Combed cotton yarn prices definitely turned firmer and the recently severely upset carded cotton yarn price structure was stabilized after substantial recessions, especially for coarser yarns. The full-fashioned and cotton hosiery knitting industries continued to deal with unsettled prices. Underwear knitters experienced an abrupt upsurge in demand. Cotton waste demand, especially for better qualities, improved encouragingly after several months of inertia, partly reflecting advances in raw cotton markets.

Production of electric power during June in Carolina plants continued at "boom" levels. Rail and motor truck freight traffic was described by the carriers as about all that they could handle. Passenger traffic reflected vacation season influences.

Farm equipment still is in tremendous demand. The farmers are buying—for cash—all that the dealers can obtain from manufacturers and the dealers aren't taking old machinery in trades. Cast iron pipe plants, miscellaneous hardware dealers, and steel fabrication plants are unable to see any recession with demand still harassing them.

Impressive also, because of its implications as regards numerous industries, the producers of industrial and commercial gases and welders' supplies report that they still are selling all of these products that they can make.

Some improvement may be developing slowly in the construction industry. So far this tendency is more in the fundamentals than in activity, though consumption of materials is seasonally high. Housing shortages are handicapping industrial and business establishments which desire to expand payrolls. Lumber dealers are pressing to eliminate war-time "abuses" in this trade to increase quality and dependability of specifications while prices are slightly irregular.

Mill work prices are turning competitive and demand for concrete blocks is about equal to capacity after recent price dips. The volume of deferred construction is slowly increasing—a construction industry source recently estimated that in Charlotte alone deferred construction totals around $25,000,000. Lack of warehouse and industrial plant facilities is a painful handicap to numerous corporations desiring to expand operations in the Carolinas.

Urban and rural real estate prices are in a downtrend and are meeting strong buyer resistance.

In the retail and service trades, business is brisk. Candy manufacturers are handicapped by lack of sugar. Old-line laundries are meeting severe competition from the rapid expansion of do-it-yourself laundries. Furniture manufacturers and retailers have sharply reduced their prices and improved their qualities, with the result that sales are improving correspondingly. Business machines are selling as fast as the agencies receive them and demand for service for such machines is insistent and in large volume with skilled mechanics in short supply.

Inventories of wholesalers and retailers still are high in dollar value and as yet far from balanced but they are in an over-all better condition than a month or six weeks ago.

The automotive trade is experiencing a seasonal peak. New cars still are far below bona fide orders. Demand for gasoline and motor oil for automobiles and trucks is around record levels. Used car prices are easing; there is much less excitement than in recent weeks in this business. Lack of new trucks is supporting the market for used trucks. Tire prices lately have dropped substantially and supplies are adequate to the relatively brisk demand. Automotive service establishments are working about at the capacity of their mechanics and their shop facilities.

Textile machinery and paper pulp industries continue the bright spots—their outputs are sold far ahead.

The grain milling industry is working about at capacity, though harassed by high prices of grains and particularly the recently upsurging corn prices. Fortunately for the Carolina livestock, poultry and dairy farms, a large crop of oats is a factor in holding down mill feed prices, again ranging around $80.00 per ton, at the mill.

Business for the tobacco manufacturing industry retains its high volume but these companies are troubled by narrowed profit margins. The Carolina and Virginia tobacco farmers apparently will produce a big crop. However, the leaf growers are gloomy over price prospects, particularly because of severe restrictions imposed by England against imports of tobacco and products.

The Southwest

By DAN F. SUMMERS

Dallas—Sales were far below inventories in Texas for the first half of this year with buying over the state conspicuously retarded.

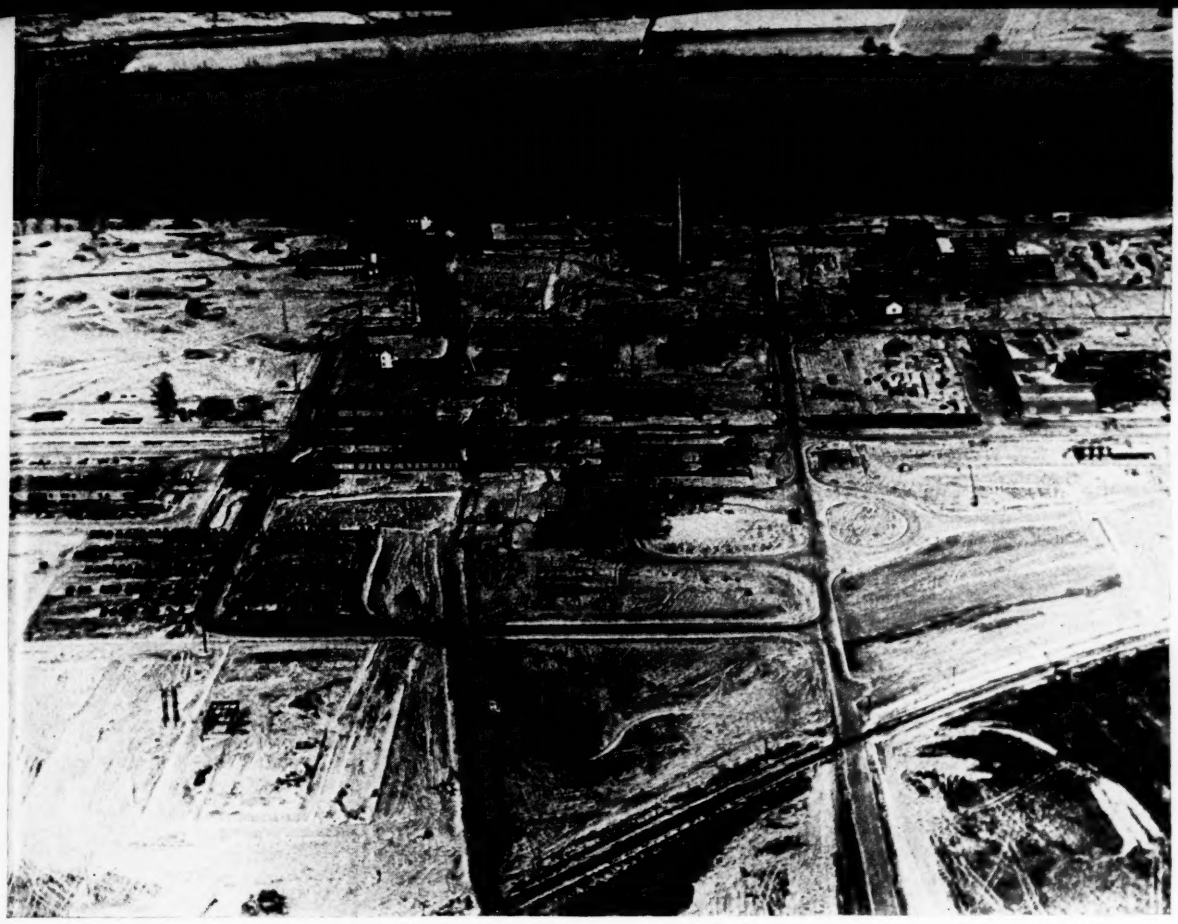
The University of Texas Bureau of Business Research reported in June that sales have climbed 28 per cent so far this year, but a picture of inventories show a heavy 66 per cent gain over these sales.

Wholesalers report their sales as steady for the first five months of the year while in the retail trade there is a noticeable slump in farm implements, shoes and women's specialties.

Location of new industrial manufacturers as well as expansions by settled firms continued to hold attention in Texas. In Dallas, Armstrong Cork Company of Lancaster, Pa., announced the site for its only bottle cap factory outside of Lancaster which is expected to be in operation late this year.

Significant was the comment made by H. W. Prentis, Jr.,

(*Continued on page* 56)



Above—The multi-million dollar Washington Bottom plant being built by DuPont near Parkersburg, W. Va.

DuPont Reports Progress in the South

ONE new plant is one hundred per cent completed and in operation and seven other projects are from seven to 78 per cent finished, the Du Pont Company announces in a progress report on its post-war expansion program in Southern states.

The Houston, Tex., plant on the La Porte Highway and San Jacinto Bay about 20 miles southeast of the city was completed earlier this year. Agricultural fungicides and veterinary chemicals are now in production there.

Of steel and masonry construction, the facilities include a remodeled administration building, gate house, laboratory, warehouse, medical building, machine shop, repair and storage garage, and five new buildings.

Products of the plant include:

Phenothiazine, most effective anthelmintic known for the control of internal parasites of animals.

"Fermate" and "Zerlate" fungicides, new organic compounds based on the iron and zinc salts respectively of dimethyl-dithico-carbamic acid, for the protection of a wide variety of fruits, vegetables, and other crops against attack by fungus diseases.

"Arasan" seed disinfectant, effective in protecting corn, peanuts and vegetables against fungi, molds, and germs.

"Tersan" fungicide for control of fungi attacking golf and lawn turfs.

One New Plant Finished, Seven at Various Stages

Chattanooga Nylon Plant

The company's third plant for making nylon yarn, being built on a 600-acre tract near Chattanooga, Tenn., is now approximately seven per cent completed. Construction should be fully completed during the third quarter of 1948.

Buildings are of steel frame and pre-cast concrete wall slab construction.

About 1000 men and women will be needed to operate the plant when it is first brought into production.

This expansion, together with extensions being made to present plants, will triple the output of nylon textile fibers achieved by the end of the war.

The plant site is on the north side of the Tennessee River, northeast of the city, below TVA's Chickamauga Dam and faces the city and Lookout Mountain.

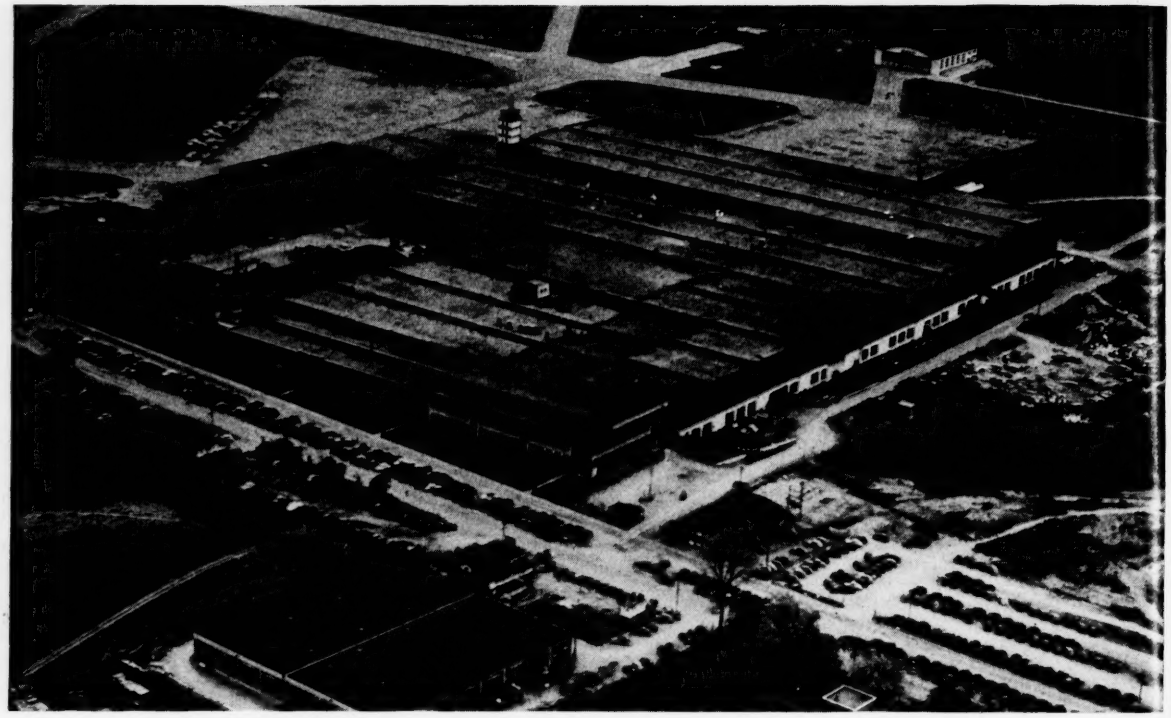
The first nylon plant was built at Seaford, Del., and began operation in December, 1939, about a year after the invention of the new product was announced. Demand for nylon was up to expectations and

(Continued on page 32)

by

H. O. Belleville

Finished Products Story of the Month



Above—Nashville division of Consolidated Vultee Aircraft Corp. is located at Berry Field.

Consolidated Vultee Changes to Buses and Home Appliances at Nashville Plane Plant

by
B. L. Clark

THERE is a difference at the large sprawling Consolidated Vultee Aircraft Plant in Nashville, Tennessee, where, not so long ago, sleek, vicious fighter planes and deadly dive bombers crowded each other down final assembly lines, there to roar away to the far-flung battle fronts, aiding our armies to crush the enemies of our American way of life.

Today at one side of the plant hundreds of gleaming white kitchen ranges and frozen food refrigerators stream from mechanized conveyor lines on their way to provide more time for better living in American homes. While at the other side of the factory, down the same assembly lines and over the same machines that during the war produced military aircraft, parts are fabricated and assembled into big comfortable

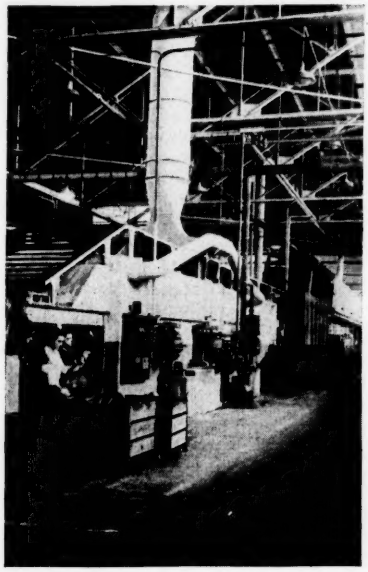
Left—Polish and trim are applied as each Consolidated-Vultee-coach leaves the last paint spray booth.

44-passenger city coaches, on their way to relieve the overburdened transportation systems of our cities.

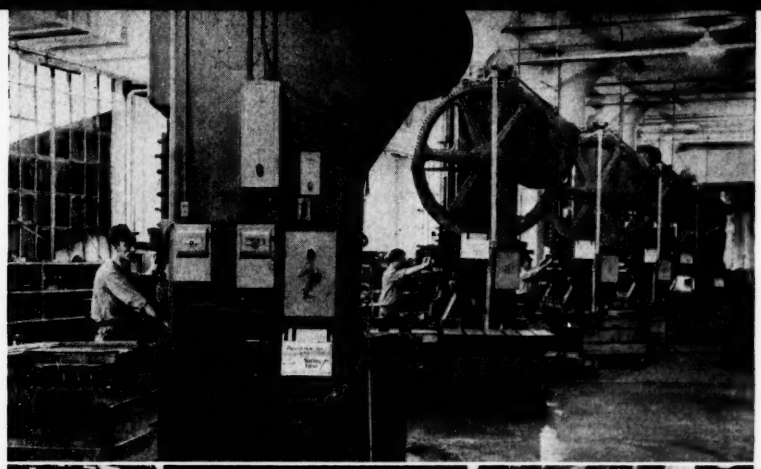
When the war came to a close and the need for fighting aircraft was curtailed, Consolidated Vultee Aircraft top management felt morally obligated to the community and their faithful employees to operate this large plant if possible. To do this, however, it was necessary to produce some useful peacetime product other than aircraft, as the demand for private planes could not support the potential production capacities of the many company-owned plants.

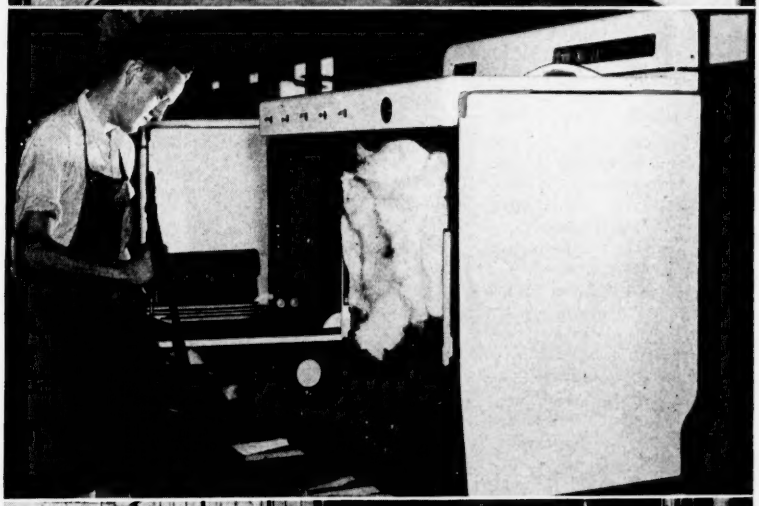
Management decided to utilize 400,000 of its million square feet for production of household appliances, although this would require an outlay of several million dollars for equipment as the manufacturing process was entirely different from that of the aircraft industry. Floor areas were laid out and the latest handling and processing equipment

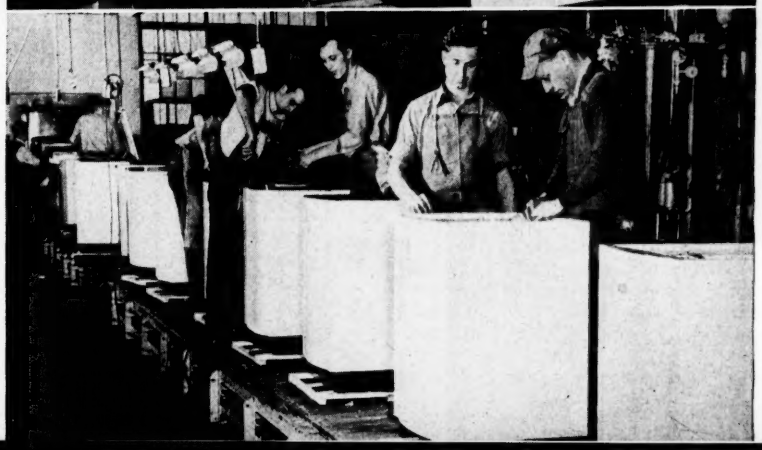
(*Continued on page* 60)



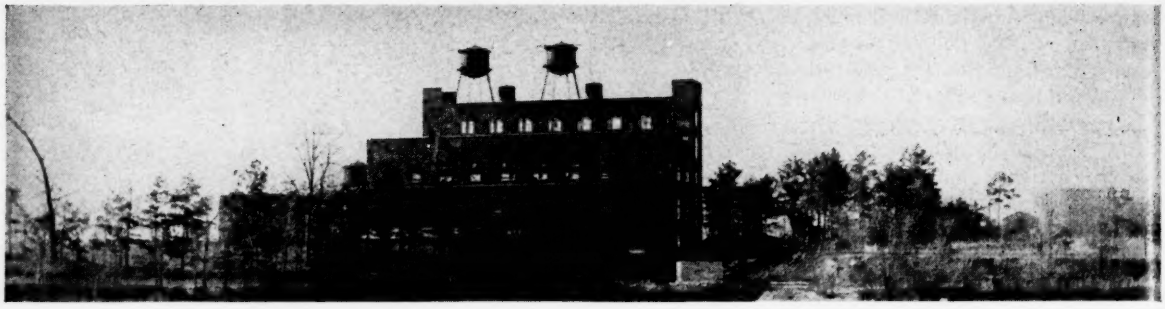
Above—Parts at the Consolidated Vultee plant are japanned in this 350-foot long cleaning, processing and baking unit.







Right—Top—A section of the press shop. Second—Porcelain enameled parts from the furnace chain are taken by drag conveyor to final assembly lines. Third—Door for Consolidated-Vultee-built broiler is assembled to the range at one station on the 300-foot final line. Bottom—Final assembly is done on a moving slat type conveyor.



Above—Arkansas Power & Light Co. has contracted to purchase the uncompleted Lake Catherine steam-electric plant at the Jones Mill aluminum reduction plant near Hot Springs, Ark. and will spend about $10,000,000 for its completion, when it will be one of the largest in the South with a generating capacity of 80,000-kilowatt-hours an hour. The company has contracted also with Reynolds Metals Co., which has leased the aluminum plant, to supply power for manufacture of aluminum from Arkansas bauxite.

Arkansas Power and Light to Spend $54,000,000

AS a part of its unique "Make Our Company Best" program, the Arkansas Power & Light Company, which serves more than three-fourths of the state, has launched a $54,000 000 expansion and improvement plan for its entire system.

The "Make Our Company Best" plan of the company, conceived by President C. H. Moses and receiving the wholehearted support of the company and its nearly 2,000 employees, was started last year. Details of the $54,000,000 expansion program for the years 1946-51, have been announced by Executive Vice President C. S. Lynch, who is executing this phase of the plan.

The company applied for permission of the Arkansas Public Service Commission to issue $11,000 000 in first mortgage bonds to finance the first part of the 1947-48 program; it is planned to spend $23,-000,000 during these two years.

At a hearing on the company's bond issue application, Executive Vice President C. S. Lynch disclosed that the following construction projects are planned during the 1947-48 period:

Expenditures totaling $1,950,000 on power production facilities in 1947, and $3,053,974 in 1948.

New transmission facilities in 1947 would cost $2,510,000, and $2,006,000 in 1948.

New distribution facilities would cost $7,309,841 in 1947, and $4,899,233 in 1948.

About $156,900 would be spent in 1947 on general items, and $469,900 in 1948.

Items included in production division construction plans:

Completion of 30,000 kilowatt Cecil Lynch power plant near Little Rock, expenditure of $1,817,238 in 1947, making total cost of plant $3,685,000.

Included in transmission items construction plans:

154,000 volt transmission line, Norfork to Harrison and Ozark Beach, Mo., to connect with Empire District Electric Company system, expenditure in 1947, $1,-035,122, in 1948, $20,000; total cost of project $1,400,000.

154,000 volt transmission line, Morrilton to Russellville, expenditure in 1947, $355,407; in 1948, $40,000; total cost of project, $396,000.

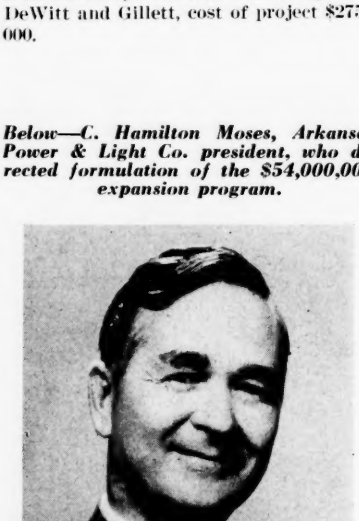
Central and Eastern Arkansas transmission and sub-station improvements, total cost $2,006,000.

Lightning protection devices on transmission lines, total cost of project, $880,-000.

110,000 volt transmission line from Brinkley to Parkin, total cost of project $650,000.

Improvements on 66,000 volt system from Ricuskey sub-station at Stuttgart to DeWitt and Gillett, cost of project $275,-000.

Below—C. Hamilton Moses, Arkansas Power & Light Co. president, who directed formulation of the $54,000,000 expansion program.



110,000 volt transmission line from Russellville to Danville, $175,000 expenditure in 1948, total cost of project $650-000.

110,000 volt transmission line, Cecil Lynch steam-electric station to Brinkley, expenditure of $700,000 in 1948, total cost of project, $1,070,000.

110,000 volt transmission line from Carpenter hydro-electric station to Arkadelphia, $170,000 expenditure in 1947, total cost of project, $370,000.

154,000 volt transmission line from Newport to Brinkley, expenditure of $50,-000 in 1948, total cost of project $650,000.

Distribution items include:

Construction of 20,000 horsepower transformer station, 110,000 volts to 13,000 volts, in Little Rock, total cost $322,000.

Rebuilding of Malvern - Arkadelphia transmission line, first transmission line of high voltage ever built in Arkansas, cost of project $45,000.

Improvements to Pine Bluff distribution system, cost of project, $250,000.

Improvements to El Dorado distribution system, $365,000, total cost.

13,000 volt line from Parkin to Midway, cost of project $16,488.

Improvements to distribution system in city of Harrison, cost of project $15,000.

Installation of 110,000 volt sub-station in Amity, with connections, cost of project $200,000.

Installation of 110,000 volt substation with connections in Malvern, $175,000.

Installation of 110,000 volt substation and connection in Marianna, cost of project $115,000.

110,000 volt substation and connnections at Cherry Valley, cost of project $105,000.

Connections for 33,000 volt service at Wilson substation, $121,000.

Rectifier stations in Little Rock, total cost of project $122,000.

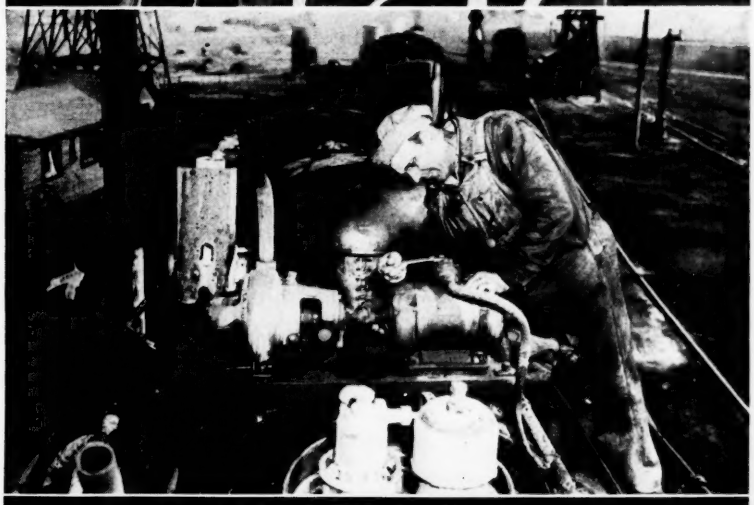
Eighty addresses are to be delivered at the Fifteenth Midwest Regional Meeting of the American Chemical Society at Kansas City, Mo., June 23 to 25. More than 1,000 chemists and chemical engineers from Iowa, Nebraska, Missouri, Kansas, Arkansas, Oklahoma, and adjacent states will convene to discuss the impact of recent chemical progress upon the farm, the home, and industry, according to an announcement by Prof. Calvin A. Vander Werf of the University of Kansas, chairman of the Kansas City Section, which will sponsor the event.

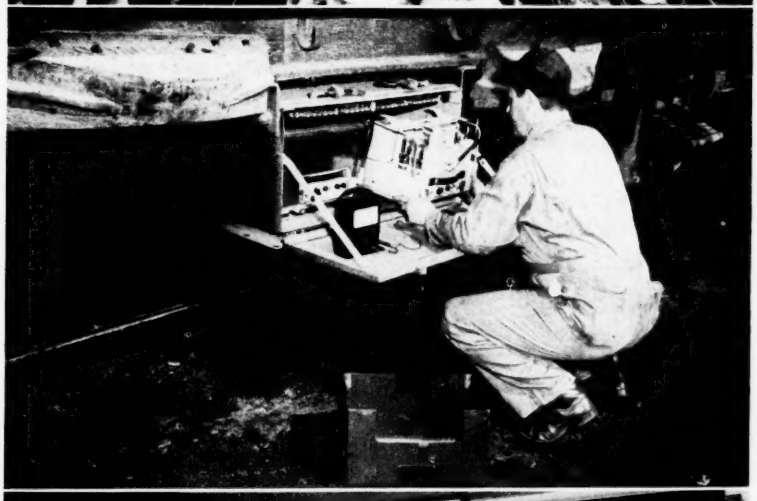
Train Radio Speeds Rio Grande Produce to Eastern Markets

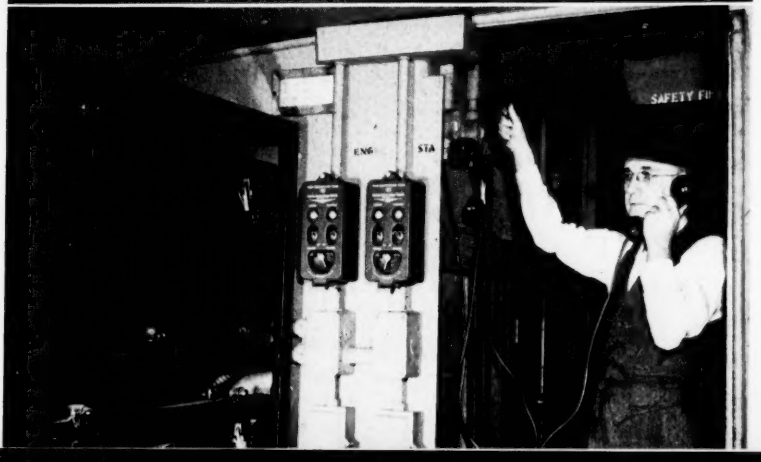
ST. LOUIS, Chicago, Cleveland or New York housewives buying fresh vegetables and citrus fruit might thank radio as one of the factors in speeding these perishables from the Lower Rio Grande Valley of Texas to northern and eastern markets. Engine-to-caboose radio in train communication operates on the 191-mile section of the Missouri Pacific Railroad's line between Alexandria, La., and McGehee, Ark. A few minutes' saving in time getting in and out of sidings and in other instances, may add up to enough time on a late train to insure a close connection with northern and eastern lines at the Dupo, Ill., terminal of the Missouri Pacific. Where a close connection is made, it may mean as much as 24 hours' earlier delivery at destination.

Twelve locomotives and eight cabooses already have been equipped with radio transmitters and receivers to permit communication between the engineer and conductor on the long and heavy 75- to 100-car fast freight trains of valuable perishables, and on other red ball merchandise trains between New Orleans and Kansas City.

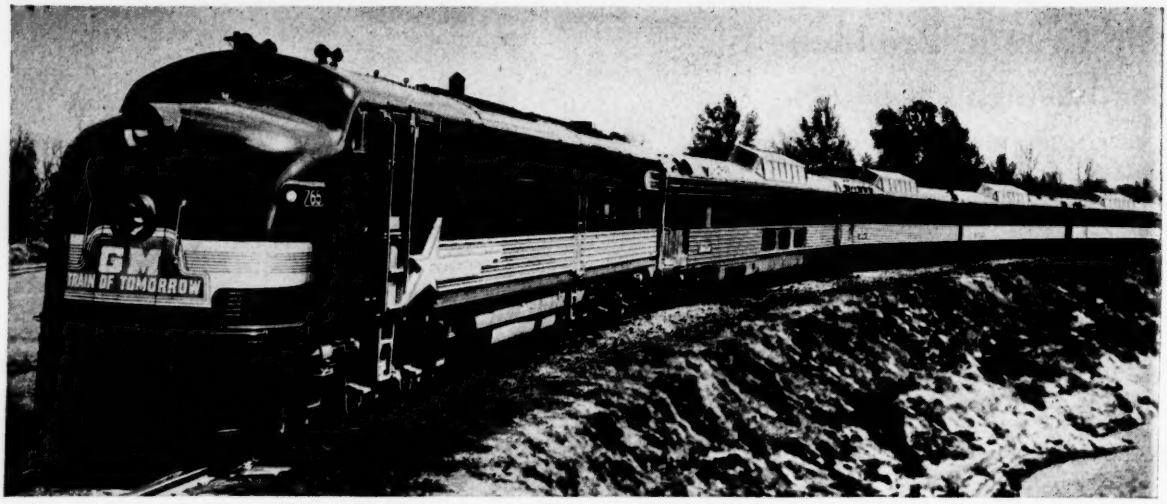
Present installation plans call for the equipping of 15 engines and 15 cabooses. The work of completely reconditioning the cabooses, before installation of the cabinets and conduits for the wiring, has been going on in the Missouri Pacific's North Little Rock Shops. The communications equipment itself is installed at McGehee, Ark. All work is being done by the railroad's shop forces.







Left—Engineer's handset is within easy reach in the Missouri Pacific radio installation. The second picture shows the steam turbo-generator on top of the locomotive boiler. This supplies power for the engine radio only. An axle-driven generator and batteries supply the caboose radio. The transmitting amplifier is installed in a steel case under the locomotive tender. This is shown in the third view. At the bottom is a general view of equipment in the caboose. The large black cabinets house the radio units and the station-to-train material. The motor-generator set is at the bottom. Control boxes are installed on the cupola bulkhead. Handsets are mounted for convenience of train crewmen in the cupola or on the caboose floor.



Above—General Motors Corporation's "Train of Tomorrow" this month is moving down the Atlantic Coast from Baltimore to Jacksonville and thence back to Atlanta, where it will travel across to Louisville. A 100-mile-an-hour diesel locomotive with two 1,000-horsepower engines and four 85-foot long coaches make up the train, which includes a chair car, diner, sleeper and observation-lounge car. One of the features of the train is the elevated Astra dome extending two feet above the roof of each car.

Transportation Equipment a Southern Opportunity

by

Caldwell R. Walker
Feature Editor

IN present facilities for the manufacture of transportation equipment, the South has both a huge task ahead of it and also a great opportunity.

Better than a half billion dollars were expended jointly by public and private interests during the war to set up in the South 122 new plants, a large share of which are of enormous size and capacity.

Seventy of these new establishments are shipyards, or plants designed for shipbuilding or repair. These plants, 70 in all, cost a total of $232 million — an average of $330,000 each. While some of these plants were augmentations of shipbuilding works already in existence, a great number were entirely new.

Forty-eight additional plants were established for the purpose of building aircraft. These were practically all brand new establishments. Most of them are of huge size. All were very expensive to build and equip. Their structures and equipment represent the very finest and most modern in design and tooling. Nearly all of them are air-conditioned, and equipped with accessory facilities such as cafeterias, recreation departments and intercommunication systems. Total cost of the 48 aircraft plants was $434 million, an average of nearly $1 million each. The highest in cost was $79 million, the lowest, $25,000. Plants costing less than $1 million, of which there were 20, were designed chiefly for fabrication of various aircraft parts. All, however, are fully equipped with practically every imaginable type of shaping, forming and assembling devices known to mechanical science.

What to do with these mammoth establishments when their wartime service should come to an end was a question pondered by industrial planners long before the end of the war. Much of this planning has borne fruitful results. Most of the smaller plants have already been converted to uses outside the aircraft industry. Some still continue to fabricate parts for aircraft, either of military or civilian design. Quite a number still have their future to be worked out.

The effect of these plants on Southern industrial economy during the war was very important. Wage earners rose in number and skill. In numbers, workers in the transportation equipment industries increased from 34,000 in 1939 to 355,000 in 1945. These plants afforded the first large scale opportunity Southern workers had ever had to acquire education in mechanical and technical skills. The results of their performance were quite satisfactory. Value of products turned out showed even greater increase than the 944 per cent gain in employment. Production value grew from $156,000,000 in 1939 to $1,771,928,000 in 1945—a gain of 1,035 per cent. Some of this gain accrued from the higher prices that prevailed in the latter year; nevertheless, when it is considered that Southern workmen were for the most part engaging in an industry that was entirely new to them, the record cannot but be construed as encouraging.

New plant structure was well distributed among the states of the South.

New shipbuilding facilities installed during the war were apportioned among Southern states as follows:

State	*Number of Plants*	*Aggregate Cost*
Alabama	7	$ 2,298,000
Florida	15	38,245,000
Georgia	5	30,997,000
Louisiana	17	24,189,000
Maryland	11	52,814,000
Mississippi	3	4 298,000
South Carolina	1	4,377,000
Tennessee	1	56,000

(Continued on page 54)

Surplus Plants Costing $1,000,000,000 Undisposed of in Southern States

During the war, there was invested in the South by the federal government nearly $4.5 billion in new facilities for production. A large portion of this new plant structure has already passed into the hands of private industry, either by outright purchase or by leasehold. There still remains undisposed of, however, facilities aggregating in cost nearly $1 billion.

The War Assets Administration, as selling agencies for these properties, is also an active sponsor of multiple tenancy projects. Such projects are proving successful despite the fact that special treatment is often required in the case of the larger plants. These were originally erected for one integrated purpose, with the departments and machinery more or less overlapping and interrelated throughout. It often becomes necessary, therefore, to dispose of existing equipment to other than particular multiple tenancy applicants who occupy the space where such equipment was originally stationed. That the procedure is successful, however, is evidenced in a number of instances, apt examples being at Talladega and Birmingham, Alabama and at Kansas City, Missouri.

Applicable either for multiple tenancy or individual operation, 136 plants were listed by WAA as available in the South as of June 13, 1947. Like other types of inventory, when widespread, the status of these plants can change quickly, and without the immediate knowledge of the central selling agency. Branches of WAA exist in Atlanta, Dallas, and Kansas City, each of which is further departmentalized through regional offices. Regional offices are located at Richmond, Va., Charlotte, N. C., Jacksonville, Fla., Birmingham, Ala., Nashville, Tenn., Louisville, Ky., St. Louis, Mo., Little Rock, Ark., Tulsa, Okla., Houston and San Antonio, Tex., and New Orleans, La. All of these offices are qualified to consider applications, and to enter into negotiations for sale or lease of surplus property.

Fifty-two of the 136 Southern surplus plants are chemical plants. Thirteen were built for aircraft construction or modification. Seven are machinery or shell loading plants — extensively equipped with forming and shaping machine tools. Ten are for the purpose of nonferrous metals production or fabrication. Thirteen are equipped to produce iron and steel or their products. Nine are oil refineries. Eight are shipyards. Eleven are synthetic rubber plants. Nine are equipped for food processing. One each is devoted to electrical equipment and to stone, clay and glass products.

Forty of the plants are in Texas; 15 in Kentucky; 13 in Louisiana; 10 in Alabama; nine each in Maryland and Tennessee; eight in Oklahoma; seven in Missouri; six in West Virginia; four each in Arkansas and Florida; three in Virginia, and two each in Georgia, Mississippi, North Carolina and South Carolina.

Briefly these plants consist of the following:

ALABAMA

Shipyard at Mobile; operated by Alabama Drydock and Shipbuilding Co.; 377 acres; nine buildings, 600,000 square feet all told; 18 crane runways; four piers; 12 shipbuilding ways, four side launching ways, eight end launching ways.

Explosives plant at Sylacauga, operated by E. I. duPont deNemours & Co.; 13,162 acres; 575 buildings totaling 2,500,000 square feet; equipment includes locomotive repair shop, autoclaves, absorption columns, A.O.P. units complete, compressors, condensers, coolers, filters, separators, motors, pumps, bleachers and instruments.

Aircraft modification plant at Birmingham; operated by Bechtel-McCone Corp.; 312 acres; fifteen buildings, 1,440,000 square feet; lathes, grinders, presses, air compressors, battery chargers, hoists, pumps, welding equipment, drills, chippers, riveters; two 3-ton traveling cranes. (Part of this plant has been leased).

Steel plant facilities at Birmingham, formerly a shell producing plant; operated by Goslin-Birmingham Mfg. Co.; somewhat less than two acres; building consists of an industrial saw-tooth type structure, one story, with total area of about 50,000 square feet; concrete floor and structural steel upper structure; contains machine shop, storage room, office, cafeteria and locker and wash rooms; conveyor pit runs almost full length.

Chlorine Plant at Huntsville; formerly operated by the Army; this operation is a dual structure facility, each unit of which has a capacity of 50 tons of chlorine a day; only one of the units is equipped, however, to produce solid caustic; the plants are about two and a half miles apart; each has a cell building, rectifier room, liquefaction building, evaporation building and administration building; equipment includes electrochemical chlorine cells, are rectifier units and numerous chemical equipment.

Chemical plant two miles from Huntsville; set up to produce chemical warfare materials; known as Huntsville arsenal and formerly operated by the Army; about 20,000 acres and 4 million square feet of floor space; total of 858 buildings including numerous process buildings, utility and service buildings and warehouses; construction generally of concrete, steel and asbestos; equipped with tanks, special reactors, refrigeration systems, ethylene furnaces, generators, scrubbers, vaporizers, superheaters, dryers, compressors and distillation units; complete complement of machine tools and maintenance.

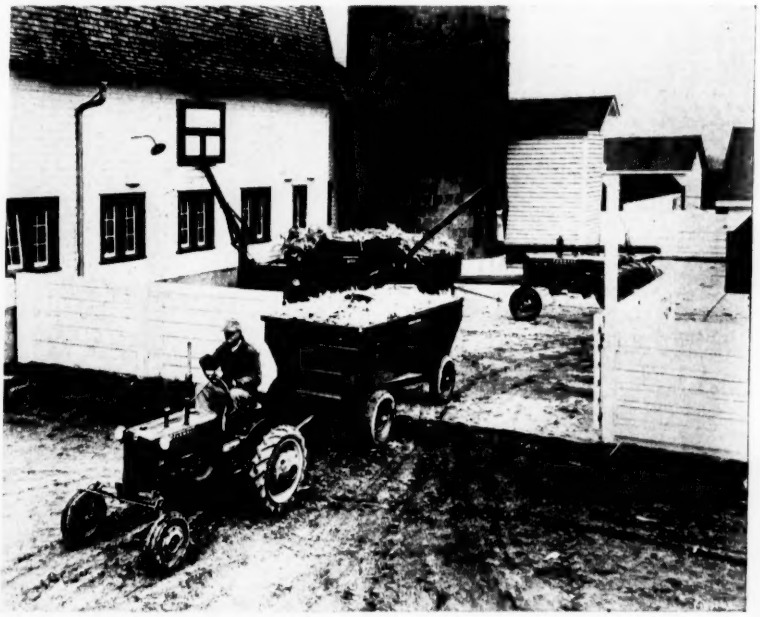
Tin reclamation plant, at Birmingham; operated by Southern Detinning Co.; designed to process salvaged tin cans; 26 acres; about 30,000 square feet in three buildings—detinning, chemical and machine shop—also boiler house, office and warehouse; equipped with electric furnaces, tanks, pumps, conveyors, filters, evaporators, scrap balers, shredders, etc.

Ammunition plant, three miles southwest of Huntsville; Army operated; between 11,000 and 12,000 acres; over 150,000 square feet in 26 buildings which include among others, machine shop, storage and assembly and shipping buildings; equipped with air compressors, marking machines, staking machines, Dennison presses, pelleting presses, scales, vacuum produce units, assembly and disassembly and crimping apparatus, mixers, pumps, etc.

Iron and coke plant at Gadsden; operated by Republic Steel Corp.; designed for production of pig iron and coke; 19 acres, eight major buildings with 60,000 square feet of total floor space; buildings of steel brick and concrete construction; also 10 minor control buildings; equipped with underjet high-low burner type coke ovens, blast furnace, pig casting machine, turbo generator and blower, two 100-ton diesel electric locomotives; 75 steel freight cars; 15 ton crane, 6 ton crane, 25 ton derrick, etc.

(Continued on page 48)

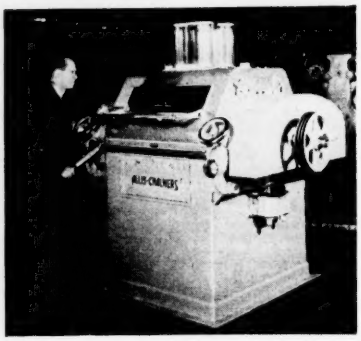
Below—The Farmall Cub tractor produced at the Louisville plant of International Harvester Co., whose engineers designed the unit for small farm use. It sells for $545 f.o.b. factory and is the nucleus of a group of implements such as plow, planter, cultivator, disk harrow and mower, altogether to involve expenditure of less than $1,000.



New Products

Flour Mill

A line of flour mill machinery designed for the special purpose of helping mill operators conform to more stringent U. S. Pure Food Laws is announced by the Allis-Chalmers Manufacturing Co., Milwaukee, Wis. A preview picture of the modernized, all-metal equipment was given to industry representatives attending the annual convention of the Association of Operative Millers. New designs for a roller mill, a sifter and a purifier are based on a nation-wide survey of industry needs conducted by Allis-Chalmers over a year ago, according to the company, which provided evidence that milling men are not only in great need of new machinery, but have specific preferences on important features leading to modern design and more efficient operation. Improvements incorporated in the new designs follow closely the recommendations of the research committee of the Association of Operative Millers, as reported recently to equipment manufacturers and to operators at this convention.



A.-C. Streamlined Mill.

With the new models off the drawing board, productions lines are now being organized. Deliveries in sizable quantities are expected to be scheduled before the end of the year.

Dust Eliminator

A new portable bench-type dust collector for laboratory and similar small shop dust collecting from buffers, polishers, grinders and similar work is added to its line of Dustkop dust collectors by Aget-Detroit Co., Main at Washington Sts., Ann Arbor, Mich.

Recommended for laboratories where space is extremely limited and where quiet operation yet proportionately high dust storage is required, the Model No. 330 Dustkop is self-contained and requires no installation other than simply placing it in position on the bench and plugging in to a light outlet. A ¼ h.p., continuous duty 1745 rpm motor for operation on 110 volt, single phase power, drives a paddle-wheel fan which is capable of clearing chips and dust from grinding, lint and strings from polishing and buffing as well as sludge from pumice and other wet finishing operations. The hood which is fastened on the Model No. 330, has a baffle, light fixture for illumination of the work and two removable trays for easy emptying of debris which drops from the work. The two trays also eliminate mixing accumulated dusts from wet or dry work. A flap on the leading edge of the hood reduces wheel carryover. A toggle switch mounted on the front of the cabinet is convenient for starting and stopping the motor.

New Type Rubber

A new all-purpose synthetic rubber made from sand that embraces the most desirable properties of other rubbers specially designed to resist heat or cold, oil or water, or attack by weather or chemicals was described by R. R. Selfridge, G. M. Konkle, and P. C. Servais of the Dow Corning Corp., Midland, Mich., in a report presented at the spring meeting of the American Chemical Society's Division of Rubber Chemistry in Cleveland. Asserting that the so-called silicone rubbers play their multiple roles even better than the special compounds, the report declared: "Either the high or the low temperature stability, considered as a single property of silicone rubbers, makes them a valuable material for the designer. But the combination of stability at both extremely high and extremely low temperatures in a single rubber multiplies its serviceability. The greater oil and weather resistance of silicone rubbers are also of considerable usefulness."

Plastic Coating

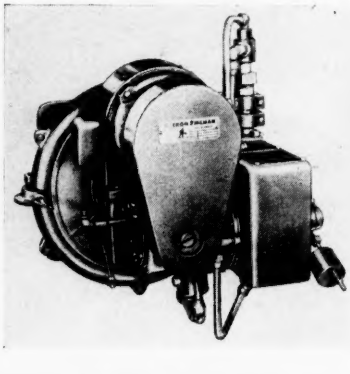
A new plastic coating called Plastiglaze has been developed by the Calresin Corp., of Culver City, Calif. Plastiglaze is said to be impervious to water, salt air and water, and most mild acid solutions. It hardens, toughens and preserves paper, plywood, common lumber, and plaster. When necessary it affords a high glaze to a surface. It has been used most recently to coat plywood for use in the construction industry.

Stud Type Jackbit

A new Stud-Type Jackbit, with an attachment member that is designated as the Jackstud, has been added to the line of rock drilling equipment of Ingersoll-Rand Co., Phillipsburg, N. J. The bit has new wing curves that enable it to retain new bit proportions through many resharpenings. The resulting small gage loss permits using successive bits with reductions in diameter of 1/16-inch or less per change. This makes it possible to start holes with smaller bits than those previously used and still bottom them at the same size as before. Drilling speeds are consequently higher than before and the time consumed per hole is less.

Oil Burners

Iron Fireman Manufacturing Co., of Cleveland, Ohio, and Portland, Ore., has announced a new principle of heavy fuel oil control, according to C. T. Burg, vice-president in charge of sales. It is in the new series of industrial heavy fuel oil burners that the principle is used to stabilize the feeding rate of fuel, regardless of changes in fuel oil temperature or viscosity. These new burners have capacities from 8 to 125 gallons per hour. It is claimed that even though the fluidity can vary widely with changes in temperature, these Iron Fireman burners will deliver the same quantity of oil, no matter how thick or thin, and will feed evenly at the maximum burning rate or throttled down to low capacity, and that no regulating valve or viscosity compensating device is required. The company is producing these rotary-cup type burners at its factories in Portland and Cleveland. These new industrial oil burners supplement Iron Fireman's industrial line of coal stokers for power, processing and heating.



Industrial Oil Burner.

Milling Fixture

A versatile milling fixture used primarily for production milling, but equally adaptable for use as a work holder for tapping, drilling, reaming, deburring, spot facing, chamfering and grinding operators, is announced by Manufacturer's Engineering Service, 415 Security Building, Toledo 4, Ohio.

Known as Kam-Grip, the milling fixture is equipped with interchangeable anvils and movable jaws to accommodate a wide range of sizes and shapes. Lock and release rod provide for automatic operation in conjunction with drill press.

It is in production now and available for immediate delivery through tool distributors and jobbers.

Steel Pallet

A new steel pallet, designed to cut down shipping costs through light weight and to reduce handling costs through eight-way lift utility, was introduced recently by the Monroe Auto Equipment Co., Monroe, Mich., at the national exposition of the Railway Supply Manufacturers Association in Atlantic City. Design of the new unit permits the forks of a lift or pallet truck to be slipped between the top and bottom sections from eight different directions—four sides and four corners—thus cutting down the maneuvering necessary in crowded factories, warehouses, assembly and conveyor line operations, and loading and unloading freight cars, trucks and trailers. Known as the eight-way pallet.

Its announcement of the pallet was simultaneous with the introduction at the railroad show of a new Monroe hydraulic shock absorber for railroad freight cars, a new hydraulic easy-ride seat for locomotive cab crews, and perfected ride control equipment for new railroad passenger cars. These product announcements follow closely on the placing in production of a new drop-bottom skid box designed to eliminate slow and awkward manual emptying of steel boxes and tubs used for small parts handling, and to let gravity do the job through a hinged bottom.

Load Lightener

Safety in hand-trucking heavy loads is claimed for the new "Universal Tilt Truck Attachment" manufactured by the Melooz Manufacturing Co., 1311 West Washington Blvd., Los Angeles, Calif. This new attachment is designed to take the load strain off the operator and double the carrying capacity of any hand truck. Free steering, the attachment is readily fitted to both new or old two wheeled hand trucks. Made in two sizes, the device rolls the load on three wheels instead of two. It is instantly adjusted to any desired load balance and in full lowered position makes a three-wheel platform of the truck.

Cotton-Testing Method

Chemists at the Department of Agriculture's Southern Regional Research Laboratory, in New Orleans, have developed a differential dyeing procedure which demonstrates the maturity of cotton fibers. It is based on the fact that mature cotton fibers are thick-walled and immature ones, thin-walled, and that thick- and thin-walled fibers take the same dyes differently and also take different dyes. The test is easily made on unprocessed cotton lint in laboratory or dyehouse. When fully perfected it should have wide usefulness. A mixture of dyes of contrasting colors, red and green, and of different dyeing properties, is used in a standard method of dyeing. The thick-walled, or mature fibers dye definitely red, whereas the thin-walled fibers, commonly called immature, dye a distinct green. As a result, differentiation is easy.

Powerful Turbine

A hydrogen-peroxide turbine, designed in wartime Germany and recently modified by the United States Navy, may propel future American submarines at unusually high speeds, according to the forthcoming issue of Sea Power, official organ of the Navy League. The article reveals many important secrets learned by American naval experts studying German equipment. The turbine, on which the Nazis were still working when the war ended, would have given their submarines an underwater speed of twenty-six knots, faster than many surface craft. Another German development, which is being fitted to existing American submarines, is the schnorchel, the air tube that lets a Diesel engine breathe under water.

Floor Conditioner

A new Floor Machine made by Brewer Electric Manufacturing Co., 000-A Ravenswood Ave., Chicago, Ill., is now available for plant maintenance which can be used alone for many purposes, but is recommended in combination with the Tornado Industrial Vacuum Cleaner for floor conditioning and cleansing.

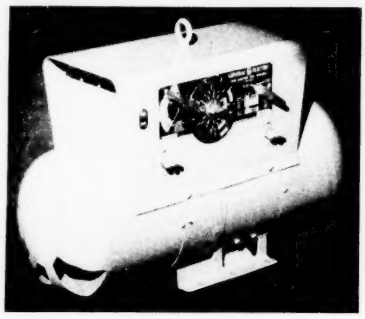
The new Tornado Floor Machine is a motor-driven floor brush designed for scrubbing, polishing, waxing, sanding, steel-wooling, shampooing, etc. It can be used on any type of floor or floor covering with an interchange of suitable brushes and may be equipped with a solution tank which feeds directly into the base of the bristles. Five models are in production, ranging from ¼ hp. to 1 hp. with operating brush spreads from 12 inches to 20 inches. All models have completely enclosed gears in cast aluminum housings and are equipped with splash proof, continuous load motors.

Metal Tagging Outfit

A new metal tagging and tag embossing outfit, primarily designed to provide a more permanent and efficient method of identifying billets during storage in yards prior to the rolling operation, is announced by M. E. Cunningham Co., Pittsburgh, Pa. In operation, interchangeable embossing type is quickly set up in the embossing unit. After embossing with a light hammer blow, the tag is placed in a fixture which bends it to fit over the hammer face and into the hammer clamps provided, at the same time punching a special heat treated nail through the tag. The hammer used with the Cunningham tagging outfit is a regular three pound Safety Engineer's style tool. By swinging the hammer in the customary manner, the nail is driven into the steel billet, permanently attaching the tag.

Arc Welders

A new line of single-operator high-speed d-c arc welding machines, Type WD-40, have been designed for savings in size and weight and improved welding characteristics by General Electric Co., Schenectady, N. Y. Operating at 3500 rpm, the new welders are available in



G.E. Arc Welder.

200-, 300-, and 400-ampere models. Compact design makes them easily portable, saves floor space, and permits full utilization of underbench and balcony space. The arc is easily established and maintained through full arc voltage, generated instantly after short circuit. Excessive weld spatter is reduced through current peak adjustment.—A new single-dial, dual-range control is used on the welder.

The standard assembly includes a stationary welding generator, driving motor, control cabinet and panel, and a motor starter assembled into a single, compact unit. A two-wheeled, balanced running gear is available as an optional feature.

Hydraulic Piercing Unit

The Vulcan Tool Co., of Dayton, Ohio, recently announced the completion of a new hydraulic piercing unit that pierces all holes in the flanges of a refrigerator door in a single seven-second operation. The unit, requiring only one operator, performs the over-all job formerly requiring four individual piercing operations. Vulcan's piercing principle can be adapted to practically any operation requiring multiple hole piercing. The unit, replacing four punch presses and the necessary sets of dies, pierces a total of fifty-five holes in the four flanges of an 8-foot refrigerator door. All door sizes can be accommodated. The change-over from one size to another requires approximately one hour. The unit can be used for either right or left hand doors by changing the punches for the hinge holes.

Lift Truck

The Model "K" Hydroelectric Motorized Lift Truck, combining new features, is announced by Walter C. Stuebing, president of Lift Trucks, Inc., 2425 Spring Grove Ave., Cincinnati 14, Ohio. The new model, a new design, is being produced in pallet and platform styles in a variety of sizes, all having a 4000 lb. capacity with two forward speeds and two reverse . . . plus dynamic braking.

Outstanding features include: The Stuebing Two-Wheel Front Drive which offers greater stability and easier turning and maneuvering. It is also claimed that tire maintenance is simplified by the new design. An improved dynamic brake works quickly, smoothly and dependably, controlled by a convenient push button.

Designed for complete electrical operation, a compact motor and pump comprises the power Lift which lifts loads quickly and safely . . . deposits loads gently. Known as the "Stuebing Power Package" . . . motor and control are designed especially for industrial truck service. The entire unit motor, drive and controller can be removed from the frame like an outboard motor. Speed control is obtained without use of resistors, saving battery energy. All speeds and the brake are controlled by three push buttons contained in the steering handle. Forward and reverse buttons are two-position, giving low speed when partially depressed and full speed when depressed to the second position.

Platform models of the new truck are furnished in 20" and 26¾" wide, 36" to 72" long platforms, all with 3½" lift from 6" to 11" standard heights. Pallet models are 24" and 27" wide, 30" to 60" long with 4" lift from 3½" lowered position. Trucks can be equipped for 8, 12, and 24 hour service with standard batteries. New literature is available on request.

Fork Lift Scoop

A new and reportedly convenient scoop attachment for its Motowlift fork truck was recently announced by Service Caster & Truck Corp., Albion, Mich. The accessory, designed to speed the handling of bulk materials, features an air cushion shock absorber to prevent the scoop from slamming down on the mast. All-steel welded, the scoop may be attached to the fork carriage in five minutes. Capacity of the scoop is 10 to 17 cubic feet. Has a replacable blade. The fork carriage of the Ford-powered Motowlift is designed for interchange from standard pallet forks to other types and special accessories such as the scoop.

New Type Motor

Fairbanks, Morse & Co., Chicago, Ill., have introduced an entirely new type of electric motor designated as Axial Air-Gap—a radical departure in design. The axial air-gap motor is distinguished by the fact the the magnetic lines of force follow a path parallel to the shaft (or axis of rotation) as compared to a radial path taken by the magnetic flux in the conventional motor. The new type mofor is beyond the experimental stage, according to R. H. Morse, Jr., vice president and general sales manager of the company. He added that, "more than twenty thousand of them are now serving industry. We are now in full production, and the new motor, an exclusive Fairbanks-Morse achievement, is commercially practical today." This new line of motors ranging in size from ½ to 10 HP is suitable for horizontal or vertical flange mounting, or on an angle base for belt drive. The outstanding features are space and weight reduction, the new motor being less than half the size of the conventional type motor and weighing less by approximately 30 per cent, yet retaining all the necessary characteristics of sturdiness and power requirements.

Other features are the simplicity and speed with which this motor can be inspected, cleaned and lubricated; a cooler rotor; much greater acceptability as flange-mounted motor with less overhang for unlimited machine application.

Brazing Tips

The addition of three new multiflame brazing tips to their apparatus line has been announced by the Air Reduction Sales Co., 60 East 42nd Street, New York 17, N. Y.

The tips are recommended for use in silver brazing, high temperature brazing and in the application of hardfacing alloys.

Style 721 is a light, compact, multiflame tip brazed to the end of a short, completely flexible copper extension. It is available in sizes 5, 6, 8 and 10.

Style 722, which should be especially applicable to the refrigeration field, is a dual tube tip brazed to a flexible copper extension. It comes in sizes 5 and 7.

The Style 723 multiflame brazing tip was developed especially for brazing operations where it is advisable for the operator to be farther away from his work. The tip itself is identical with the tip end of Styles 721 and 722 but should be used with a standard 10" flexible extension tube.

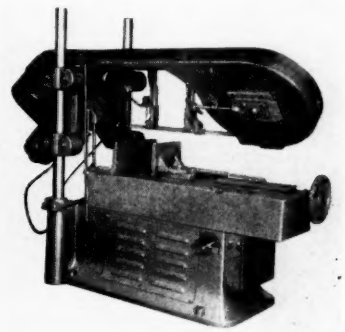
All of these tips will operate satisfactorily with various gas combinations—oxyacetylene, oxyhydrogen, oxy-city or natural gas. The latter two types of gases must be under pressure when used for brazing.

Styles 721 and 723 tips have been tried out in laying down hardfacing alloys. After much experimentation, they have been pronounced satisfactory for this purpose—in some cases even superior to single-flame tips.

For further information on the three new Airco multiflame tips Style Nos. 721, 722 and 723, write Air Reduction at the address listed above or the Airco sales office nearest you.

Metal Saw

The Wells No. 12, a new heavy-duty horizontal metal-cutting band saw, features an automatic cutting cycle in which the blade is fed into the work at a constant pressure and the cutting head is returned by hydraulic



Metal Saw.

power to its starting position above the work upon completion of the cut. Elimination of manual operations is designed to reduce operator fatigue and make possible higher production, while control of blade pressure is claimed to result in a better cut, more efficient operation, and greatly reduced blade breakage. The saw, developed by Wells Manufacturing Corp., Three Rivers, Mich., is designed for cutting off rectangular stock up to 12" deep by 16" wide or cylindrical stock up to 12¾" diameter. In addition to cutting through stock, the saw can be automatically controlled to cut to any desired depth for work on dies or other parts.

The base and bed are castings. The cutting head rides on closely fitted rollers on two heavy columns. The hydraulic system is enclosed in the base. The saw blade is enclosed except at the cutting zone.

Cutting speeds are 50, 90, or 150 ft. per minute. A ¾ H.P. motor drives the blade and a ½ H.P. motor drives the hydraulic pump. Overall dimensions are: 59" high x 78" long x 32" wide. Shipping weight is approximately 1750 lbs.

Chemical Crusher

The Pennsylvania Crusher Co., Liberty Trust Bldg., Philadelphia 7, Pa., announces a new "Bradmill" type unit developed for reducing phenolic plastics and other chemical solids and to produce particles roughly cubical in shape with 100% passing the desired screen size. The crusher combines the impact crushing principle with a screening action. The two main elements are a rotating screen and a centrally located rotor carrying impact paddles. The main shaft carries the screen which is rotated slowly. The exterior is covered by screen cloths or perforated plates assembled in sections for ready interchange of sizes. Within the screen is mounted a series of baffles against which the material is thrown by the action of a rotor mounted on a secondary shaft. On the quarter points the baffles continue to the screen surface and act as lifting shelves, to carry oversize material to the top of the screen and drop it on the rotor. The main shaft is driven by chain from a motor reducer. The rotor shaft is mounted within the hollow-drilled main shaft and is driven by V-belt from a separate motor.

Electric Feeder Bus

Designed for conducting long runs of large alternating currents, the new Universal Feeder Bus now being marketed by National Electric Products Corp., Pittsburgh, Pa., is available in 800, 1000, 1350, 1600 and 2000 Amp. capacities, and is being produced in these types: 2 pole—single phase, 3 pole—3 phase, and 3 phase—4 wire. Protected by an expanded steel mesh on all sides, the bus bars are interlaced, wrapped and insulated to assure the least possible temperature rise. This construction assures minimum weight and maximum heat dissipation. To secure an easy and fool-proof method of joining the 10-foot sections, the silver plated ends of the individual bus bars are bent outward and edgewise at a 45 deg. angle. A steel bolt, fitted with large flat and lock washers, is inserted to draw the bus bar ends together in a firm and positive joint. Cable lugs or other bus bars can be bolted at these joints for desired take-offs.

Masonry Drills

A line of carbide tipped masonry drills put up in kits and boxed sets are now offered from stock, according to an announcement made by H. E. Berry, sales manager of Super Tool Co., 21650 Hoover Road, Detroit 13, Mich.

The kits contain five popular size drills and the boxed sets contain eight. Both are available with drills having either round or Super-Grip Hex type shanks of the improved slip-proof design.

Also included with each kit and set is a new chart indicating the proper size drill to use in drilling masonry for all types of expansive screws, bolts, bolt shields, anchors, etc. Super carbide tipped masonry drills can be used in drill press, hand drills or electric portable drills. Extra length drills for deep hole work are also available from stock. Stocked sizes and prices may be had by addressing the company.

Rod Cutter

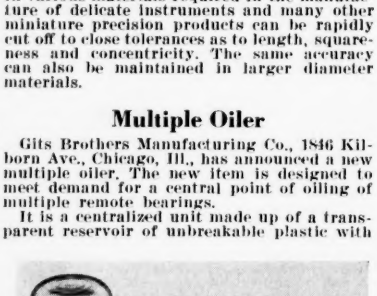
O'Neil-Irwin Manufacturing Co., Lake City, Minn., announces a new product known as the DI-ACRO Rod Parter. This unit is offered in two sizes with capacities of ⅜-inch and ⅝-inch cold rolled steel bars and is designed and manufactured for accurately cutting or "parting-off" round materials without distortion on a production basis.

The device incorporates a powerful multiple leverage arrangement and Torrington roller bearings. Extremely small diameter rods in various materials required in the manufacture of delicate instruments and many other miniature precision products can be rapidly cut off to close tolerances as to length, squareness and concentricity. The same accuracy can also be maintained in larger diameter materials.

Multiple Oiler

Gits Brothers Manufacturing Co., 1846 Kilborn Ave., Chicago, Ill., has announced a new multiple oiler. The new item is designed to meet demand for a central point of oiling of multiple remote bearings.

It is a centralized unit made up of a transparent reservoir of unbreakable plastic with



Gits Multiple Oiler.

a non-spill valve and a main reservoir from which copper tubes lead to the various remote oiling points. In the main reservoir, fed from the patented plastic constant level reservoir, the oil is maintained at an even level. Overflow and flooding of bearings is impossible.

A feature is the inclusion of a series of valves—one for each of the leads—permitting the flow to each bearing to be adjusted individually or turned completely on or off. Thus the system may serve more than one machine, or it may serve complex units with independently working parts.

Voltage Regulator

A general-purpose portable AC voltage regulator, featuring electronic control circuits and designed specifically for component applications with electrical equipment utilizing light loads has been announced by Sorensen & Co., Inc., 375 Fairfield Ave., Stamford, Conn. The new regulator, designated Model 150, has an input voltage range of 95 to 125 volts AC with an output of 115 volts. Other important features include a load range of 10% to 100%, a frequency range of 50 to 60 cycles and a power factor range of 70% lagging to 90% leading. Maximum recovery time is six cycles. The device is suited for incorporation with electrical apparatus and with laboratory, production and quality control test equipment, with high frequency oscillators for regulation of filament and plate supplies and with photometric apparatus. Finished in a gray enamel case, Model 150 measures 9 inches by 7½ inches by 6 inches.

Television Receiver

Philco Corporation has introduced in the Philadelphia area its first commercial television receiver, a table model set with a 10-inch picture tube and mahogany cabinet, it is announced by John Ballantyne, president.

This first Philco receiver is said to provide television pictures so bright and clear that they can be seen without the necessity of pulling the shades or dimming the lights, a special feature being electronic control that brings the user a clear, steady picture in sharp focus. Each station, as selected, is precisely tuned with pictures automatically synchronized and focused. An automatic level control keeps the picture sharp and the sound clear regardless of variations in signal strength.

Ten Ton Press

Expansion of its line of standard hydraulically operated assembly presses to include a 10-ton model has been announced by Colonial Broach Co., Box 37, Harper Station, Detroit 13. With a maximum adjustable stroke of 12 inches the press has a power stroke speed of 180 inches per minute with a return stroke of twice that amount. Ram speeds are adjustable over a wide range, however. Working pressure is 1200 PSI, maximum, and is adjustable through a knurled dial on the front of the machine to any desired amount below this. This feature is particularly advantageous when assembling relatively delicate parts. Desired pressure can be selected and maintained xactly through a direct reading pressure gage adjacent to the pressure control regulator. The machine is compact, requiring only 25 by 42 inches of floor space and is operated through a 7½-hp. motor.

Standard equipment on the 10-ton model, as on others of this series, from 10 to 50 tons, includes hand operating control and pressure gage. Foot pedal control, for use where operators are required to have both hands free, is available as extra equipment, as are various pressure and speed controls to suit individual needs.

Heavy-Duty Truck Control

Elwell-Parker Electric Co., Cleveland, has developed a new type of controller, tested in severe service and now available, for electric power industrial trucks. Heart of the Rolotac is a series of nine "trigger fingers" for response and transfer of current, giving the operator mastery of the truck. Each finger comprises a trunioned tube which houses a spring enclosing a plunger. A tubular sleeve or piston fits inside the upper end of the tube and outside the plunger spring. Trunions are supported on arms in the controller frame. Lower end of the tube is fitted with a pivoted bronze block, to which is attached a heavy flexible copper lead, and also a terminal contact. Located above and horizontal to the series of fingers is a ball-bearing-mounted cam shaft with cams made of hard fibre.

Projection Welders

A new line of improved roller-head, press-type spot and projection welders, ranging from 50 to 500 KVA capacity has been announced by Progressive Welder Co., 3050 E. Outer Drive, Detroit 12, Mich. Among the features claimed for these new welding machines is that they are equally adapted to continuous high production runs and to handling of various types and sizes of work on a job-lot run basis. This combination has been achieved by designing the machines for high-speed operation while providing for rapid change-over, required when welding 'miscellaneous' work, in the arrangement of knees, welding arms, platens, electrode holders, etc. Provision can be made for pulsation welding, resistance-upsetting and resistance-brazing; also for pre-heating, post-heating or tempering of the work while still in the machine.

Terminal Wiring

A new method of terminal wiring is announced by Howard B. Jones Division, Cinch Manufacturing Corp., 2460 W. George St., Chicago 18, Ill.—the Jones Fanning Strip. With this new unit, multiple wiring to barrier terminal strips is said to be greatly simplified and facilitated. From one to 20 wires from the cable lead-in can be securely anchored to proper terminals and quickly soldered, without the usual complications. Connections through the Fanning Strip can be made on a bench or anywhere apart from the mounted barrier strip, and the entire assembly slipped in place in the barrier strip in an instant. All that remains is tightening of the terminal screws, and the assembly is complete.

Brass terminals are cadmium-plated. They are securely riveted on a heavy bakelite mounting base. Strong cadmium-plated terminals are 1¼". Length of the strip is determined by the number of terminals used.

The new device is designed for use with Jones Barrier Terminal Strips Nos. 141 and 142. No. 141 provides for one to 20 contacts, and No. 142 one to 17 contacts.

Data on the Fanning Strip and its applications may be had by addressing the manufacturer.

Fire Extinguisher

The newest in Foamite Firefoam fire extinguishers, for vehicle service, as recently announced by American-LaFrance-Foamite Corporation of Elmira, N. Y., has a sealed stopper construction built into the top which prevents the chemicals from mixing until needed. A twist of the wrist releases the seal and the extinguisher is ready for action. Except for carrying straps, this new Foamite fire extinguisher is similar to the Foamite Fire Department type carried on fire engines. It is applicable to tank trucks and other large vehicle units because it produces a fire-killing chemical foam equal to approximately 10 times its own capacity. It stops oil and gasoline fires and prevents reflashing. It has Monotype seamless drawn shell construction and is tested to 550 pounds pressure. With a stream range from 35 to 40 feet, the foam can reach fires beneath the truck body as well as all other surfaces. In common with all foam type extinguishers, this new Foamite vehicle unit requires protection from freezing.

Conveyor Lubricators

The J. N. Fauver Co., 49 W. Hancock, Detroit 1, Mich., announce the recent installation of a new type lubrication system, for conveyors operating through high temperatures. These lubricators were designed and manufactured specifically for use in a large automobile plant foundry on core-oven chains. This six-unit installation operates twenty-four hours a day, in temperatures to 550° F.

These automatic lubricators are for reducing the horsepower needed to drive the conveyors and eliminate the necessity of a man on each shift, required for hand lubrication. Use of conveyor lubricators not only returns a substantial profit, but assures more efficient operation with production stoppages due to conveyor trouble reduced to a minimum.

Each unit is mounted on top of the six-inch I-beam which carries conveyor wheels, and automatically lubricates the wheel bearings from each side of the two wheels above each hanger. The unit is also equipped with a manifold containing eleven nozzles that lubricate all the link pins between hanger trolleys each trip. Each set of wheels is eighty-eight inches apart. The conveyors travel at a speed of two feet per minute.

Other types of conveyor lubricators developed by Fauver lubrication engineers are made to fit specific requirements, such as extremes of heat or cold, high or low speed of travel, or other unusual conditions.

Piston Rings

Chambersburg Engineering Co., Chambersburg, Pa., manufacturers of forging hammers, have developed the Ceco Ring, a piston ring with wearing qualities said to extend its useful life threefold or better. Tension, hence sealing properties, is maintained throughout life of ring. The ring is heated by induction and automatically quenched and tempered. Heat treatment is accomplished by mechanically feeding the ring through an electronic heater work coil which has been immersed in oil. Power output of the generator and speed of feeding device are so regulated that the section of the ring passing through the coil is heated to 1600° F. and immediately quenched as it passes from the coil into the oil quench.

Lift Truck Improvement

Tote boxes filled with scrap or refuse for dumping, paper rolls and many similar lift truck loads now can be unloaded directly with no intermediate handling. This is made possible by a new device recently perfected by Clark Tructractor, which rotates the truck's entire fork assembly. Operated by hydraulic motor and gear reduction, the rotating mechanism is adaptable to fixed or adjustable forks, scoop and other special attachments. Savings of time and manpower claimed for the device are accomplished by elimination of manual operations necessary with non-rotating forks—removing a container in order to dump its contents, then replacing it on the forks. This device is a product of Clark Tructractor, Division of Clark Equipment Co., Battle Creek, Mich.

Office On Wheels

Business executives throughout the United States will soon have the opportunity of seeing the new Ozalid Streamliner of General Analine and Film Corp., Johnson City, N. Y., which reproduces typed, drawn, printed and photographic material in 30 seconds—operating right at their own doorstep. To better reach the thousands of Streamliner prospects, Ozalid is building a fleet of trailers which are literally luxurious sales offices on wheels. The first of this fleet has already toured New England and the Southern states.

This new method of selling has many apparent advantages. Now, instead of merely explaining the features of the new Streamliner and showing literature and pictures, the Ozalid salesman can invite interested company executives to step downstairs for a demonstration. There, he can demonstrate, first hand, how the Streamliner reproduces drawn, typed, printed, and photographic work in less than 30 seconds. For example, a typewritten report or a file card is reproduced as an easier-to-read, positive (not negative) copy direct from the original. No stencils are necessary. You simply type or draw your work on a translucent sheet of paper or card, and that's your "Master," ready to turn out as many prints as you desire.

Humidifier

A new development in the field of air conditioning is the "Atomick" Humidifier. It is a simple device for adding humidity to indoor atmosphere. It is designed particularly for use in those industries where the year-'round maintenance of proper humidity is vital to production and uniformity of product.

The single spray "Atomick" Humidifier will atomize up to 1¼ gallons of water per hour, while the 4-spray unit will handle four times as much. It is air operated. Where a compressed air line is not available, a small compressor, such as artists use, may be employed.

When "hooked in" for service with unit heaters, humidification starts when the unit heaters "come on," and the "Atomick" Humidifier continues to deliver a mist of water vapor directly into the warm air flow for as long as the unit heater is in operation. If this arrangement tends to result in too much humidity, the "Atomick" Humidifier may be controlled separately by a humidistat. In hot, dry climates, the units can be used for cooling purposes.

The "Atomick" Humidifier also has many other applications. It is an extremely practical device for atomizing and dispensing D.D.T. and other liquid insecticides. Installed in warehouses, etc., it provides an efficient method of pest control. In hospitals, large toilet rooms, and in types of industrial process work where foul odors are generated, it can be used to spray deodorants and disinfectants.

More complete information can be obtained by writing to the manufacturer, Maid-O'-Mist, Inc., 3218 N. Pulaski Road, Chicago, Ill.

Rubber-tired Wheels

A new line of rubber-tired wheels for industrial and domestic uses has been announced by Champion Iron Works, Inc., 2223 Gratiot Ave., Dept. AV, Detroit, Mich. In a range of sizes from 4-inch to 14-inch extreme diameter and from 1.75-inch to 3-inch diameter of tire section, puncture proof "Zero Pressure" wheels are available with choice of sealed ball bearings, plain bronze or oil-impregnated sintered bronze bearings. The maximum standard bore is ⅝-inch. Tires are identified by well-known brand names and are demountable with ordinary hand tools. Feature of Champion Wheels is the sealed and welded ball-bearing hub. There are no nuts, collars or washers. All parts are heat treated. Suggested uses are factory, beverage and appliance trucks, wheelbarrows, welders, battery chargers, wheeled toys, garden carts and farm implements. Champion Iron Works also manufactures a solid rubber-tired wheel, vulcanized on ball-bearing hub. Illustrated catalog sheets giving complete data and price lists are available.

Insect Control

Virginia Smelting Co., West Norfolk, Va., manufacturers of refrigerants and industrial chemicals, have developed a new aerosol insecticide marketed under the trade name of Lethalaire. This insecticide has been designed primarily for large industrial and commercial users. Lethalaire kills many of the insects that plague public places, restaurants, factories, greenhouses, homes. It comes in a portable 5-pound container-applicator or in a permanently installed Solenoid System which, the makers say, ensures its correct and economical application. A turn of the handwheel on the portable applicator releases a circulating, self-propelled mist full of fine insect-killing particles that remain suspended in the air for a half hour or more. Each cylinder holds enough Lethalaire to kill all the flies in 750,000 cubic feet of space or all the mosquitoes in 1,250,000 cubic feet. For average use, there is enough for 125 applications in a room 20 feet by 30 feet by 10 feet. Because the Lethalaire precision-engineered nozzle is scientifically designed, it generates a spray having particles of the desired entomological size and meters the flow, preventing waste and insuring high insect mortality.

Steel Conveyor Belt

A steel grid conveyor belt that can turn corners without tipping—describe a complete circle if need be—move a product uphill or down, or horizontally straight ahead has been designed for industrial process lines with special space requirements. Known as "Flex-Grid," this wire-built belt is manufactured by Cyclone Fence Division of American Steel & Wire Co., United States Steel Corp. subsidiary, in Waukegan, Ill. The new conveyor's open construction permits the air circulation required for cooling a light-weight product while in motion. A section 2 feet wide weighs only 3 pounds per linear foot and is made in bright, galvanized, tinned or stainless steel wire as may be most desirable to meet special conditions in manufacturing operations. The cooling belt lines of a baking plant, for example, may be designed to hug the walls, turn as many corners as necessary, and to stack flights to ceiling heights with as little as 10 inches between loaded faces. There are no lubrication problems, and because steel wire is used, no difficulties result from fats, oils, greases, fumes, or heat.

Shock Absorbers

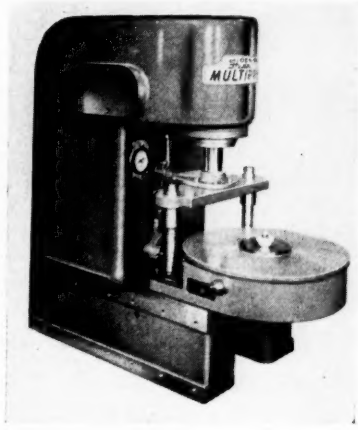
Completion of a $100,000 test of ride control equipment for railroad freight cars, designed to drastically reduce the "triple damage" of lading losses, car repairs and roadbed maintenance, is announced by Brouwer D. McIntyre, president of the Monroe Auto Equipment Co., Monroe, Mich. The reduction is effected through cutting down shock and vibration—principal "triple damage" causes—by as much as 93 per cent through the use of direct-action hydraulic shock absorbers similar to those on new railroad passenger cars and automobiles. Adaptations and installations for all freight cars now in service and all new freight cars now being built were developed during the test, and will be introduced by Monroe to the nation's railroads at the exposition of the Railway Supply Manufacturers Association in Atlantic City, June 23. Extending over 10 months and covering trials on two railroads as well as plant and laboratory experiments in which operating conditions were simulated by a huge mechanical oscillator in loaded and empty freight cars, the test involved scientific recordings of 75,000 occurrences of shock and 17,000 other ride phenomena, 5,200 feet of ride recorder data and 1,580 oscillograms.

Automatic Plane Control

What adds up to virtual automatic control is said to characterize the new Martin 2-0-2 twin-engined luxury airliner. Now in its second phase of test, over a total of 87,000 miles, the plane is said to be so automatic as to be almost self-operating. The entire forward end of the cabin is a maze of wires and terminals together with a huge bank of 87 dials, each recording something that is happening in some part of the plane. Keeping tab on the myriad of instruments is a 35mm camera which exposes a frame of film at regular intervals, giving a permanent, visual record of what has happened. A mile or more of film will have been exposed by the time the test flights are complete.

Dial Feed Table

Faster and more efficient feeding of small parts to the pressing station of the Multipress is claimed for a new Dial Feed accessory designed by Denison Engineering Co., 1160 Dublin Rd., Columbus 16, Ohio. This dial feed provides a mechanical type of operation, with the dial being actuated with each retracting stroke of the press ram, by mechanical linkage which is connected with the banjo type arm on the ram.

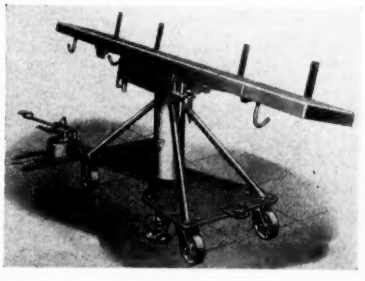


Dial Feed Table.

A simple adjustment of the actuator changes the ram stroke to provide either 8, 12 or 24 indexes per dial revolution. Regulation of the indexing stroke for correct positioning of work beneath the ram is obtained by adjustment of a hexnut on the left side of the table. Action is positive. Provision has been made for ejection of the finished parts beneath the table, by removing a section of the table casting. This ejection station is located 120° in a clockwise direction from the pressing station.

Sheet Feeding Table

As an addition to its recently announced line of Strip and Sheet Feeding Tables, Lyon-Raymond Corp., now offers a model with an adjustable tilting top for use with inclined presses as well as horizontal bed types. This model is available in a 2000 lb. capacity with table widths from 12" to 24" and lengths up to 96" (including the removable extensions). From a flat position the table top may be adjusted to a 30° tilt with several intermediate positions. In operations using inclined presses, it is possible with this unit to feed strip or sheet stock at the correct angle with full support and proper levelling. When the correct angle of tilt is determined the table top is securely locked in position by removable pins. It is free to elevate and lower at all times. For additional information write Lyon-Raymond Corporation, 3506 Madison St., Greene, N. Y.



Sheet Feeding Table.

Research Pilot Plant

A small pilot plant built by Buffovak Equipment Division of Blaw-Knox Co., Buffalo, N. Y., is a forced circulation evaporator for use in concentrating viscous materials to higher densities than is possible with natural circu-

(*Continued on page 42*)

Research Pilot Plant

(*Continued from page* 41)

lation units. The new equipment facilitates any material adapted to this type of processing. Since Buflovak is a maker of commercial evaporators for the chemical, food and process industries, the laboratory pilot plant is useful in predetermining design and process controls of commercial units. The various gauges show conditions prevailing within, and this complete instrumentation permits studies of the thermodynamics encountered in evaporation processing. The unit has a small holding capacity so that complete data may be obtained from one or two drums of material to be tested. Built entirely of stainless steel and embodying the latest sanitary features, the evaporator is adaptable to all food products and other materials that might be affected by metal contamination. The heating element is of the horizontal, submerged type. Pressures, velocities and temperatures can be varied to suit the nature of the material or test purpose.

Aircraft Engine Oil

A new additive type aircraft engine lubricating oil, designed to extend the period between overhauls and reduce the number of engine replacement parts needed for the safe operation of planes, has been developed by the Shell Oil Company, Inc., 50 W. 50th St., New York 20, N. Y. Regular use of the new product will result in substantial savings to operators of both commercial aircraft and private planes, according to B. G. Symon, manager of the company's lubricants department. Called "AeroShell Oil D," the new oil is said to be the result of years of extensive laboratory and flight tests in both large and small engines. In the past, periods between overhauls for some engines have been relatively short, Mr. Symon said, because of wear of metal parts, gradual increases in oil consumption, and deposits of sludge, lacquer and other materials which interfere with proper engine operation. The new oil, he says, was developed to keep pace with the increasingly severe operating conditions of modern aircraft engines made possible by advances in metallurgy, design and operating experience.

Engine Laboratory

Operation for the Army Air Forces of an aircraft gas turbine engine laboratory, the largest ever operated by private industry for governmental research work, has been announced by Guy W. Vaughan, president of Curtiss-Wright Corp., 30 Rockefeller Plaza, New York 20, N. Y. The new laboratory, in which can be developed gas turbine engines having in a single unit several times the power of the piston-type engine now used in the new-type Lockheed Constellation, is located at the Wood-Ridge, N. J., plant of the Wright Aeronautical Corp., engine building division of Curtiss-Wright which pioneered the piston-type aircooled radial aircraft engine and which has been engaged in gas turbine engine work for three years. The new laboratory is being used for testing all the major sections that go into a gas turbine engine. Each of a new engine's basic sections can be checked without the necessity of operating the complete engine..

Aluminum Ladder

The Aluminum Ladder Co., Carbis St., Worthington, Pa., announces a new featherweight model aluminum ladder, designed for light industrial, home and farm uses. Designated as Model DLL, the new ladder weighs slightly over 1 pound per foot, and is safe for a 250-pound load. It can be washed or scalded frequently without impairing its strength. Rungs are corrugated for safe footing. Sizes range from 6 feet to 16 feet lengths, and two of the 8, 10 and 12 feet length ladders can be joined to form an extension ladder.

The manufacturer will send literature and complete information on request.

Tote Pan Lifter

Speedy, safe and easy handling of tote pans is claimed for the storage-battery-operated Service Tote Pan Lifter manufactured by Service Caster & Truck Corp., Albion, Mich. Controlled by a push button on the handle, and powered with two standard 6 volt batteries, the Lifter has a capacity of 150 pounds. Overall height is 5 feet 9 inches. Lifting height is 54 inches. Protection of the operator's feet is provided by safety hoods mounted on the Lifter's Forgeweld swivel caster running gear.

Pick-Up Cart

A new two-wheeled Milcor Pick-Up Cart for hauling shavings, scrap, waste, rags, tools, machine parts, fabricated products, packaged goods and other materials is being marketed by Milcor Steel Co., Box 393, Milwaukee 1, Wis. Savings in time, steps and labor are claimed to be possible by the use of this cart. Front can be tilted right down to the floor for loading and unloading. Material can be swept, rolled or pushed directly in. The handle acts as a lever to raise the load up onto the wheels, and the load rests on the two wheels of the cart—not on the arms of the user. The two wheels also prevent tipping and spilled loads. The large hopper holds several basketfuls of materials.

This two-wheeled handyman is suitable for a janitor's cart. Window washers carry their water, brushes, rags, etc. in it. It makes an excellent fire fighting cart, carrying sand, extinguishers and other equipment. Stockroom, warehouse and shipping clerks can use it for filling orders, stocking shelves, etc. Mechanics and maintenance men can carry tools and materials in it. Oil can be drained from motors and machinery right into the cart and wheeled away for disposal.

Body top is 18⅜" x 28"; depth is 16", rubber tire wheels are 11" in diameter.

Pick-Up Cart.

Oil Research Method

A method of x-raying the oil fields by remote operation from its research laboratories has been developed by Gulf Oil Corporation, Harmarville, Pa. It will soon be put to use to increase the yield of the world's petroleum reservoirs, by x-raying columns of sand taken from oil wells. The new development helps solve the riddle of how oil flows through the sand and rocks under any particular field, and how it is affected by underground water and gas. Answers gained by x-ray to such problems will make possible more productive recovery methods. The x-ray technique will disclose the amount of oil which a particular well can recover—a valuable factor in planning use of petroleum reserves. It is also expected to make possible reopening and additional recovery of oil from abandoned wells.

High Speed Camera

A camera with a speed of one-millionth of a second which produces a finished photographic projection within 30 seconds after the picture is taken has been developed by General Electric's General Engineering and Consulting Laboratory at Schenectady, N. Y. The camera, being two feet long and one foot high and deep, is not portable, and is not intended for use by the camera fan. Fully automatic with the press of a button, it is part of equipment developed for the rapid testing, by means of electric power surges, of apparatus used in the generation and transmission of electric power.

TRADE LITERATURE

A new 16-page bulletin, SC-134, entitled, "Modern Gas Carburizing Processes and Equipment", has been released by Surface Combustion Corp., Toledo 1, Ohio. The booklet constitutes a compilation on the subject of modern gas carburizing. Illustrated, the bulletin tells how modern gas carburizing is accomplished and explains the related processes of Suspended Carburization, Carbon Restoration, and Dry Cyaniding. Applicable prepared atmospheres, their composition, use and method of preparation are described and discussed. The use of the 'Surface' Radiant Tube Heating Element, the Dew Point Recorder, and Controlled Atmosphere Batch and Continuous Furnaces, as applied to modern carburizing processes, are covered. Charts, graphs, and tables of an engineering nature as well as many photomicrographs of steel processed by the different heat treatments serve as reference data.

A new 2-page bulletin released by The Duriron Co., Inc., gives complete details on Durco corrosion-resistant top lubricated plug valves made of Duriron or Durichlor. A cutaway view of the valve shows which parts are made of the corrosion-resistant high-silicon iron, and the principle of operation is explained in the text. The bulletin includes a list of the operating features of this type of valve, an illustrated parts list and engineering and dimension data on all seven sizes in which the valve is available. This bulletin can be obtained, without obligation, by writing to The Duriron Co., Inc., Dayton 1, Ohio, and asking for bulletin 617.

A new bulletin, on steam specialties, designated as No. 715, has been issued by Wright-Austin Co., 315 W. Woodbridge St., Detroit 26, Mich., manufacturers of steam specialties for power plants, steam heating and processing equipment. Bulletin presents representative types of steam traps, separators and boiler trimmings from the complete line. Illustrates and describes three popular steam traps and three steam separators, together with illustrations and brief descriptions of 22 other products. A removable flap which forms part of the circular makes it easy to send for additional data required on any product shown.

A new bulletin on its line of Bulk Station Pumps has been issued by the Pump Division of Byron Jackson Co., Box 2017, Terminal Annex, Los Angeles, Calif. Coded No. 46-7000, the four-page bulletin of descriptive data covers the "TLB" pump, a centrifugal type pump, which is designed to handle gasoline, butane, diesel fuels, lubricating oils and other hydrocarbons for bulk station service. Illustrated in three colors, a cross-section drawing shows construction and operating features. Other illustrations include a pump used to unload diesel fuel from tank cars into storage, and a cement company using a Type TLB to handle diesel fuel for its trucks.

A standard unit has a capacity range to 600 gpm, discharge pressure to 150 psi, temperature to 150°F. Special units are built for higher pressures and temperatures.

Bulletin 4702 has been prepared by Taber Instrument Corp., No. Tonawanda, N. Y., to describe their complete line of specialized accessories developed for application with the Taber Abraser, a standard precision instrument employed in industrial and commercial laboratory research practice to determine the wearability of electroplated finishes, organic coatings, plastics, textiles, rubber, leather, paper and paperboard in connection with product development, quality improvement, or production control. Reviewed and illustrated are attachments designed to increase abrasion-resistance analysis efficiency. Featured from this standpoint are four new devices: (1) a vacuum pickup unit for continuously removing abradings from wear-track on specimen being tested; (2) an interval timer to control test operating time; (3) a duplex refacing stone for standardizing abrading wheels, and (4) a double-coated adhesive sheet that expedites preparation of thin, flexible materials for wear-testing.

A bulletin covering the Plibrico Rubbish Destructor has been issued by the Plibrico Jointless Firebrick Co., 1800 Kingsbury St., Chicago 14, Ill. The Plibrico Rubbish Destructor is represented to be a sturdy, air-cooled incinerator which is erected in four standard sizes to meet the requirements of practically any industrial plant or institution. While this incinerator is specifically engineered for the rapid burning action of dry rubbish and all material readily combustible, the design includes an auxiliary drying hearth for disposing of moderate amounts of wet refuse.

An important feature is that the lining of

combustion chamber and stack is air-cooled with the exception of front wall and arch. Cooling current enters through ports at the base of the walls, circulates through air lanes behind the walls, and is discharged through ports at the top of the combustion chamber side walls and inside the top of the stack.

A supersonic testing method developed in Germany during the war can locate bubbles in sheet metal which are too minute for detection by X-ray or magnetic techniques, according to a report now on sale by the Office of Technical Services, Department of Commerce.

Dr. G. J. Thiessen, a member of the National Research Council at Ottawa, Canada, prepared the report for the British Intelligence Objectives Subcommittee. The report briefly describes the work of the Reich-Roentgenstelle—a Berlin research organization devoted to the study of X-ray methods for inspecting materials.

The supersonic method tests sheet metal for faults by comparing the energy of supersonic vibrations before and after passage through the metal. Any more than the normal drop in transmission indicated the presence of a fault. Tests show that a bubble only one-hundred-thousandth of a millimeter in diameter can increase the drop a hundredfold. Though a bubble filled with slag or rust does not cause so great a drop, it is nonetheless easily detected.

Orders for the report (PB-25556); The Non-Destructive Testing of Materials and X-ray Protection Methods; photostat, $1; microfilm, $1; mimeographed, 25 cents; 8 pages including illustrations, should be addressed to the Office of Technical Services, Department of Commerce, Washington 25, D. C., and should be accompanied by check or money order, payable to the Treasurer of the United States.

FOR SALE

We have for prompt shipment several attractive items of good used power plant equipment, boilers, engines, turbines, generators and air compressors, both steam and electric driven, including:

1—165 HP 4 cylinder vertical Foos Natural Gas Engine, direct connected to Allis-Chalmers 3/60/2300 volt generator with belted exciter.

1—60 HP 2 cylinder vertical Foos Full-Diesel Engine, direct connected to Westinghouse, 3/60/2300 volt generator with belted exciter.

1—75 HP 2 cylinder vertical Fairbanks-Morse Semi-Diesel engine, direct connected to Fairbanks-Morse 3/60/2300 volt generator with belted exciter.

ALL COMPLETE WITH SWITCHBOARDS

Any reasonable price will buy these units for QUICK SALE. We also still have on hand several thousand feet of 3" heavy seamless steel tubing which is excellent for welded pipe lines. Write or call us if interested.

RALPH H. ROGERS & COMPANY

P. O. Box 707 Jackson, Miss. Phone: 3-5545

GENERATOR FOR SALE

One Westinghouse A.C. Generator, 135 KVA, 240 Volts, 3 Ph., 60 Cycle, direct connected to 14" x 24" Murray Corliss Engine. Good Condition.

Wm. C. Ellis & Sons

Memphis 3, Tennessee

WANTED

OVERHEAD WATER TANK

Want to buy, installed at our plant, 50,000 gallon overhead water tank. New or second hand, if in first class condition. Must pass Factory Mutual Inspection.

ENNIS TAG & SALESBOOK CO.

Ennis, Texas

Templeton, Kenly & Co., 1020 S. Central Ave., Chicago 44, Ill., manufacturers of Simplex Jacks for use in the marine field, the utilities of industrial engineering and construction, has issued a new descriptive bulletin on its Simplex track jacks. Designed to facilitate rail maintenance in industrial plant yards, shipyards and building construction, this new Type-A jack as outlined in the bulletin provides a new pawl and socket design that cuts maintenance 81 per cent, makes lifting 31 per cent easier, gives greater protection to the operator and has a larger striking surface. The center spread of the bulletin describes in detail the various new improvements added and features, such as full-rated lifting capacity on cap and toe, electrided gibs by means of an exclusive heat treating process for 500 per cent greater service life, hardened steel wearing plate to protect the upper inside of the housing against wear and spring-backed pawls for safe operating in all positions.

A new Rockford Hy-Jector molding machine for thermosetting plastics is fully described in a bulletin recently issued by the Rockford Machine Tool Co., Rockford, Ill. It is claimed that this 8-ounce capacity molding machine is the first of its type ever offered to the plastics industry. The entire production cycle from thermosetting plastic powder to finished part may be carried out on the single machine without manual interruption of any kind. The machine can be set so that all basic steps take place automatically. Timers and controls are infinitely adjustable so that selection of time and temperature for the particular type of part and plastic may be accurately obtained. All operations such as making of the preform, pre-heating, molding and curing take place automatically and in continuous sequence. Advantages claimed are high production speed and low die cost, and these are explained in the bulletin, No. 147.

A 12-page Book No. 2209 has been completed and is now available on the Link-Belt Multi-Louvre Dryer (or Cooler)—a new design of dryer recommended by the maker, Link-Belt Co., Chicago, Ill., for materials requiring short treatment time and/or multiple drying temperatures.

The moving element in the dryer is shown to consist of two strands of roller chain with specially designed flights, suspended in such a way as to provide means for keeping the bed in a constantly flowing mass. The material flows in a shallow bed over the ascending flights and at the same time is gradually moved across the dryer from the feed point to the discharge point.

The material is not cascaded or dropped, but has a gentle flowing action. The gases are pulled from the furnace and permeate through the moving bed of material. At this point the heat from the inlet gases is transferred to the material and the evaporation of the moisture occurs.

A bulletin issued by Morris Machine Works, Baldwinsville, N. Y., contains performance charts showing how to select a slurry pump to insure maximum life of the wearing parts when pumping any one of three basic types of slurries each containing a different percentage of solids. It also tells how the shell is interchangeable for right or left hand rotation—how the suction and discharge nozzles can be rotated around axis of pump to positions in any of the four quadrants, a total of 72 possible combinations. It shows how the Type "R" has no internal studs or bolts—how the impeller is removed without disturbing piping—how the gland is under suction pressure only, and can be dismantled by removing four bolts.

A simple efficient mobile spray generator for dispersing insecticides which may be used with practically any vehicle having an internal combustion engine is described in a report now on sale by the Office of Technical Services, Department of Commerce, Washington 25, D. C. The generator utilizes the exhaust gases of the engine to supply the spraying pressure. The assembled equipment consists of a reservoir or drum to hold the insecticide mounted on a rack on the rear of a jeep, truck, or other vehicle. A Venturi nozzle is attached by suitable lengths of flexible metal hose to the insecticide reservoir and to the exhaust stack of the engine along the side of the vehicle to receive the exhaust gases. The muffler, of course, is removed.

In early tests at Orlando, Fla., the effectiveness of the generator was demonstrated by dispersing DDT solution through the doorway of a large (350,000 cubic feet) gymnasium. Using a dosage of 100 milligrams of DDT per 1,000 cubic feet, a single blast from the exhaust lasting 15 seconds was sufficient for complete penetration of the building.

15 Ton OVERHEAD CRANE

90' Span

Complete with Motor Generator Set and 204' Crane Runway. Built 1942.

IRON & STEEL PRODUCTS, INC.

13436 S. Brainard Ave., Chicago 33, Illinois

***"ANYTHING* containing IRON or STEEL"**

Beer mats, the pulpboard disks placed under bar glasses, can be made in 2 hours from pinetree to finished product through the use of a beer mat machine described in a German pulpware industry report now on sale by the Office of Technical Services, Department of Commerce, Washington 25, D. C.

The automatic beer mat machine has two pistons, both operated by an overhead cam shaft. The first piston stamps the raw wood pulp into a flat disk about three inches in diameter, squeezing out most of the water through a metal gauze belt and flat vacuum duct head on which the pulp is deposited. The belt moves the disk to another vacuum duct head where a second automatic plunger squeezes out more water and embosses a design on the disk which is then carried to an oven dryer. The factory in which four of these machines were seen by the investigators had a daily output of 200,000 beer mats.

Stainless steel's role in the meat industry is portrayed in the latest of a series of industry booklets published by Allegheny Ludlum Steel Corp., 2026 Oliver Bldg., Pittsburgh, Pa. Third in the series, the illustrated booklet pictures the rise and importance of the meat industry and its use of stainless steels. Historically, it sketches how the industry, searching for a material that would not contaminate meat, began using stainless steels in the 1920's, and how the new metal's remarkable abilities to resist wear, rusting and scratching; the ease with which it could be cleaned, and its attractive lustre won immediate popularity.

A 1947 edition of the Foster D. Snell, Inc., brochure under the heading "The Chemical Consultant and Your Business", is just off the press and copies are obtainable without charge from the above company at 29 West 15 St., New York 11, N. Y. Following an outline of many of the types of problems which the chemical consultant encounters, there is indication of the types of business enterprises which find continual or occasional use for the services of chemical consultants. The booklet then deals with the various branches of service offered.

The first 1947 issue of Rand McNally Bankers Directory—the Blue Book shows the total of bank loans as $36,150,097,000. Loan totals have not been that large since December 31, 1930. Also shown is an increase of $254,608,000 in bank holdings of "other securities." These two together show an increase of $4,435,263,000 in the high-earning assets in banks during the six-months period. The total of "other securities" is larger than it has been since December 31, 1940.

New Offices

Link-Belt Company announces re-establishing a sales office in Washington, D. C., at 1000 Washington Gas Light Bldg., located at 11th and "H" Sts., NW, Washington 1, with Mr. C. R. ("Pete") Heller, Washington representative, in charge. Mr. Heller's duties will be confined to work with Foreign Purchasing Commissions and with the Governmental and Armed Service Bureaus located in Washington. Industrial sales in the District of Columbia will continue to be handled by the company's office in Baltimore.

J. G. Turney, civil engineer, formerly director of public works and city engineer of the city of Houston, Tex., has announced the opening of an office as consulting engineer in Houston. The office is located at 2405 San Jacinto St., in the Rich Building; telephone C 1541.

Establishment of a sales office for the state of Texas, with Harvey M. Harker as general branch manager, is announced by the Monsanto Chemical Co., St. Louis, Mo. Headquarters of the new office, which will handle the company's products other than phosphates and plastics, will be in Houston.

Assisting Mr. Harker at the new sales office will be Kenneth O'Connor, who will be in charge of office operation.

(Continued on next page)

NEW OFFICES

Geological Survey Office

The United States Geological Survey has announced the establishment of a district office at Jackson, Miss., to take charge of the surface water investigations in that state. These investigations are conducted in cooperation with state, county, municipal and Federal agencies in the state. Heretofore the work in Mississippi has been conducted through the office at Montgomery, Ala., which supervised the work in both states. Incident to the retirement of DeLoss H. Barber, district engineer at Montgomery, and the establishment of the new district office, the Geological Survey has announced the appointment of Irving E. Anderson as its district engineer for surface water investigations in Mississippi, with headquarters at Jackson.

Five of the nation's leaders in the field of mechanical testing, members of the Committee on Mechanical Testing of the American Society for Metals, 7301 Euclid Ave., Cleveland 3, Ohio, have completed the correlation of a group of articles for publication in the Society's 1947 Metals Handbook. This year's Handbook, soon to be published, will be the first since the 1939 edition. The Mechanical Testing Committee consists of A. O. Schaefer, The Midvale Co., Nicetown, Philadelphia, Pa.; Maxwell Gensamer, Pennsylvania State College, State College, Pa.; Howard Scott, The Westinghouse Electric Corp., East Pittsburgh, Pa.; R. L. Templin, Aluminum Company of America, New Kensington, Pa., and E. C. Wright, National Tube Co., Pittsburgh, Pa.

The W. F. Covington Planter Co. has announced a change in headquarters address from Headland, Ala., to Dothan, Ala.—Phone 2377; PO Drawer 761.

Letters

MR. FRANK GOULD, PRESIDENT,
MANUFACTURERS RECORD,:

I have just read your address entitled "Industrial Development in the South," which you delivered before the Southern Gas Association at Biloxi on April 18.

It is a very enlightening article and I am sure that it will do a great deal to bring to the attention of the people in other parts of the country the tremendous strides made by the South in industrial and agricultural development in recent years.

The people of the South owe a great debt of gratitude to publications such as the MANUFACTURERS RECORD which have publicized our advantages and opportunities throughout the years. We Southerners believe we have a bright future and it is due in part to the efforts of our friends who have helped to "rediscover" the South, as it were.

H. M. PACE.
South Carolina Power Corp.

DEAR MR. ALLEN:

Have read your article on "South's Paper Making Opportunities" in the MANUFACTURERS RECORD for May and find it very interesting. My congratulations to you as an author!

I, of course, knew paper making was increasing rapidly in the South but did not realize the number of men employed or magnitude of the payroll.

Your prediction that another five years should see the South providing more than 50% of the nation's pulp and over a third of the finished paper products is very encouraging to us. The industry is to be commended for providing the strong leadership to bring this about.

E. C. PATTON,
Louisville & Nashville Railroad Co.

Southern Press Comments

A staff writer for the Christian Science Monitor has discovered that Southern grown Irish potatoes are now costing the New England housewife more than oranges are costing her. They may be worth more. Certainly you cannot put oranges in a beef stew. But that isn't the point.

We are thinking of the effort the government is making right now to give potatoes away and when it doesn't succeed at that, it dumps and burns them. The United States Department of Agriculture has issued an appeal to relief agencies, school lunch programs, charitable institutions and other nonprofit organizations supported by tax grants or donations to take its surplus of potatoes off its hands at no cost to the recipients. The government will even pay transportation charges.

This is the same government, by the way, which has plugged hard for reducing the cost of living. Yet it guarantees to potato growing farmers that regardless of how much they produce more than people need, they will be given a support price to encourage them to raise and plant more spuds.—*Shelby (N. C.) Daily Star.*

If overwhelming favorable consideration by a Senate committee means anything, the nation stands an excellent chance of getting a new cabinet post—the secretaryship of health, education and security. The pending legislation is a compromise between the original Taft-Fulbright bill and a substitute measure proposed by Sen. George D. Aiken of Vermont.

As approved by the committee, the bill follows the Taft-Fulbright original in providing for three undersecretaries to handle the fields of health, education and security, but allows the President full freedom in appointing these officials.

Without question the new cabinet post is needed and should be established. It will place at the elbow of the President a man whose business it is to be familiar with the three immensely important matters of health, education and social security. All are certain to demand increasing federal attention and planning through the years ahead. When they become the responsibility of an official with full cabinet rank, a progressive step will have been made.—*Miami (Fla.) Daily News.*

The United States is in the midst of an invasion that can vastly improve our position among other peoples of the world or, mayhap, weaken it. It all depends on the impression we make, as a people and a government, on the invaders.

Seventeen thousand youths from many parts of the earth are here, studying in our schools. They are divided among almost all states. Many are in the larger cities, others in towns and rural areas—the latter chiefly concerned with American farming methods.

Their presence is a challenge. We must see to it that when they go home they are in a friendly attitude toward us.

Wilmington (N. C.) Morning Star.

In the decade from 1935-1945 the South made considerable progress in the field of industrialization. Roughly speaking the number of industrial plants increased by about one-third, the number of employees doubled and the value of industrial products tripled.

This is good, particularly where the increase has made for diversification of industry, but two factors must be set off against it. First, the South has not been increasing its industrialization any more than the nation as a whole has been increasing its; and second, the South will need to continue and even to speed up this trend if the United States embarks on a world-wide program of trading manufactured goods for raw materials as it appears it will have to do in order to get the economic machinery of the world moving again and exert its leadership in the direction of peace.

Expanding research is basic to increase and diversification of industry in the South. It is encouraging therefore to note that the Southern Research Institute in Birmingham, Ala., is enlarging its activities. Its latest report shows that, although it has been in operation only two years, it now has a plant and equipment valued at $400,000 and has 40 scientists working on a volume of research which has tripled over last year. Its research projects deal with cotton, citrus by-products, tobacco, peanuts, processed foods, tung oil, wool, wood utilization, essential oils, new drugs, mineral resources, coal, gray iron castings, metal fabrication, and air conditioning, all matters of no small concern to Southern manufacturers.—*Greensboro (N. C.) Daily News.*

Spokesmen for Southern and Northern regions affected by the supreme court decision on "class freight rates" agreed on one thing Monday: That it would stimulate the southward movement of manufacturing industries.

At that point the agreement started and also ended.

Southern leaders expressed elation at the decision upholding an interstate commerce commission order to boost rates on manufactured products 10 per cent in the northeast and to lower them an equal amount in Southern and Western states east of the Rockies. Disappointment characterized northern comment.—*New Orleans (La.) Times-Picayune.*

A Senate Public Welfare subcommittee has approved legislation authorizing a $300,000,000 federal grant for aid to education. In the subcommittee of seven, only one voted against favorable report on the measure, and he was not opposed to the principle of federal aid to schools. Thus progress is made toward equalizing educational opportunities among the states, to the end that all the nation may be benefited.—*Birmingham (Ala.) Age-Herald.*

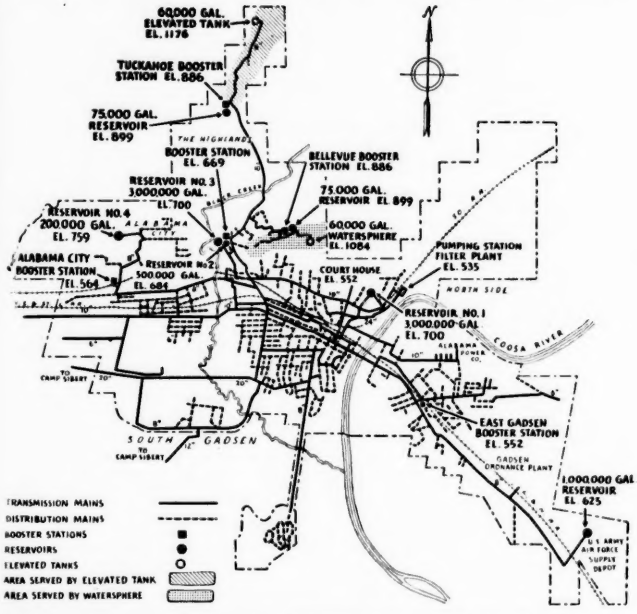
DISTRIBUTED STORAGE

. . . the key to better water service at Gadsden, Alabama

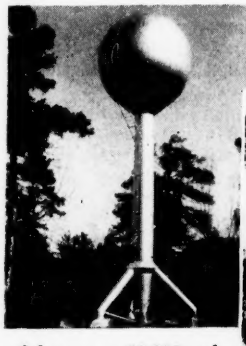
● This progressive Southern city has more than 8,000,000 gals. of water in storage, at nine different locations in its water distribution system. (8,265,000 gals. are in reservoirs and 120,000 gals. are in elevated tanks.) By placing the storage tanks at various locations and at different elevations throughout the system, the city is able to provide adequate water pressure for its 51,000 residents and the 1,500 population of Attalla, Ala. Average daily consumption for a three year period was 5,619,000 gals. with a maximum and minimum consumption of 7,600,000 and 3,600,000 gpd.

Gadsden obtains its water from the Coosa River. The main pumping station and a 9,000,-000-gpd filter plant are located on the main bank of the river in the east-central part of the city. At the main station, there are three low-lift pumps with a total capacity of 9,400 gpm to pump water from the river to the filter plant. Four high service pumps of 13,400-gpm total capacity pump the filtered water into the distribution system. The high lift pumps operate on a uniform schedule. A 2,100-gpm pump is in service from 7 a.m. to 7 p.m. and all consumption in excess of 2,100 gals. is supplied from the reservoirs. From 7 p.m. to 7 a.m. a 3,500 or 5,000-gpm pump is operated to supply the water consumed and to fill the reservoirs.

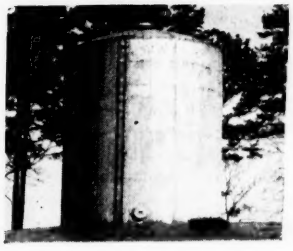
There are nine booster pumps with a total capacity of 1,720-gpm, located at five booster stations to increase the pressure in certain areas and fill the outlying reservoirs and elevated tanks. The 60,000-gal. Horton elevated tank provides gravity water pressure for an area of approximately 210 acres which has an elevation of 641 ft. above the main pumping station. The 60,000-gal. Watersphere furnishes gravity pressure for a 190-acre area 549 ft. above the main pumping station.


60,000 GAL. ELEVATED TANK EL. 1176
TUCKAHOE BOOSTER STATION EL. 886
75,000 GAL. RESERVOIR EL. 899
THE HIGHLANDS
BOOSTER STATION EL. 669
BELLEVUE BOOSTER STATION EL. 886
RESERVOIR NO. 3 3,000,000 GAL. EL. 700
75,000 GAL. RESERVOIR EL. 899
RESERVOIR NO. 4 200,000 GAL. EL. 759
60,000 GAL. WATERSPHERE EL. 1084
ALABAMA CITY BOOSTER STATION EL. 564
RESERVOIR NO. 2 500,000 GAL. EL. 684
COURT HOUSE EL. 552
PUMPING STATION FILTER PLANT EL. 535
NORTH SIDE
RESERVOIR NO. 1 3,000,000 GAL. EL. 700
COOSA RIVER
SOUTH GADSEN
EAST GADSEN BOOSTER STATION EL. 552
GADSEN ORDNANCE PLANT
1,000,000 GAL RESERVOIR EL. 625
U.S. ARMY AIR FORCE SUPPLY DEPOT
TRANSMISSION MAINS
DISTRIBUTION MAINS
BOOSTER STATIONS
RESERVOIRS
ELEVATED TANKS
AREA SERVED BY ELEVATED TANK
AREA SERVED BY WATERSPHERE

The above map of the Gadsden distribution system shows the location and elevation of the reservoirs and elevated tanks.



Above: 60,000-gal. Watersphere in Gadsden water system. Right: 60,000-gal. Horton elevated tank.



Above: One of the two 3,000,000-gal. steel reservoirs. Left: This wash water tank, located at the filter plant, holds 165,000 gals. ★ ★ ★ *The reservoirs, wash water tank, ellipsoidal-bottom elevated tank and Watersphere were fabricated in our shops and erected by our own field crews.*

CHICAGO BRIDGE & IRON COMPANY

Atlanta 3 .....2145 Healey Building
Birmingham 1 .....1530 North Fiftieth Street
Houston 1 .....5614 Clinton Drive
Tulsa 3 .....1611 Hunt Building
New York 6 .....3313—165 Broadway Building
Cleveland 15 .....2216 Guildhall Building
Chicago 4 .....2168 McCormick Building
San Francisco 11 .....1240-22 Battery Street Building
Philadelphia 3 .....1619—1700 Walnut Street Building
Los Angeles 14 .....1417 Wm. Fox Building
Havana .....402 Abreu Building
Detroit 26 .....1510 Lafayette Building

Plants in BIRMINGHAM, CHICAGO and GREENVILLE, PENNSYLVANIA

Southerners at Work

Quarter-Century Service

T. Rivers O'Brien, a native of Augusta, Ga., manager of Goodyear Tire & Rubber Co.'s crude rubber office in New York, has completed 25 years' continuous service with the company. Presentation of a diamond-studded service pin and the company's cash award was made by J. J. Blandin, vice president of Goodyear Rubber Plantations and manager of the crude rubber division, Akron, Ohio. Mr. O'Brien first joined Goodyear in Akron as secretary to the crude rubber division manager. A year later he transferred to the company's New York office as a rubber inspector, and advanced to his present post in 1936.

Traveling Freight Agent

J. T. Allen has been appointed traveling freight agent at Charlotte, N. C., with office at 1217 Liberty Life Building, succeeding Aubrey T. Mason, promoted, according to R. B. Hancock, general agent of the Virginian Railway Co.

Delta Promotes Two

The promotions of two Delta Air Lines operations men to station managers and transfers of five other station managers was announced by C. B. Wilder, Delta superintendent of stations, at Atlanta, Ga. Dale Harper has been elevated to station manager for Lexington, Ky. He formerly served as chief station agent in Shreveport, La. D. Harold Jackson has been promoted to station manager from chief station agent and assigned to Asheville, N. C. He formerly was employed in Jackson, Miss. Station manager transfers are: Robert E. Camors, from Chicago to Delta's western terminal at Fort Worth; Jody H. Brown, from Lexington, Ky., to Jacksonville, Fla.; Paul Nabors, from Asheville to Augusta, Ga.; T. K. Touw, from Augusta to Chicago, and Milton Herlong, from Jacksonville to Miami. Finis Fox and R. J. Williams, formerly station managers in Fort Worth and Miami, have been promoted to Western and Eastern Division Station Supervisors and assigned to Delta's headquarters in Atlanta.

Southern Representative

It is announced by American Key Products, Inc., New York City, that Ira L. Griffin, P. O. Box 1576 Charlotte, N. C., is appointed their exclusive southern representative. He will handle their Idaho potato starch, tapioca flour, Sago Flour, dextrines and related products. Mr. Griffin is well known throughout the industry, having served for the past 25 years as southern division manager of Stein Hall & Co., with whom he is no longer connected. Plans are being developed by American Key Products, Inc., to establish, in Charlotte, storage plant and laboratory facilities to serve Southern Industries.

Georgia ASM Elects

Alva S. Wilson, Vice-President of The Auto-Soler Co., Atlanta, Ga., was unanimously elected Chairman of the Georgia Chapter, American Society for Metals, at the Annual Meeting, May 28, 1947. Mr. Wilson, a Charter Member of the Georgia Chapter, served as Vice-Chairman during the past year.

Other officers elected for 1947-48 are: vice-chairman, Russell E. Bobbitt, Jr., Chief Engineer, Atlantic Steel Co., Atlanta; treasurer, deWitt H. Gunsolus, Southeastern representative, Eclipse Fuel Engineering Co.; secretary, Michael F. Wiedl, Managing Director, Southern Machinery and Metals Exposition, Inc. Executive Committee Chairmen elected for the coming year include the following: program, Dwight L. Hollowell, The Auto-Soler Co.; membership, Sydney M. Grandy, Oakite Products, Inc.; arrangements, Malcolm W. Baldwin, Spalding Foundry Co.; entertainment, J. R. Bynum, Gulf Oil Corp.; publicity, Bruce Moran, Bruce Moran & Co.; finance, Ben R. Askew, Georgia Power Co.; production advisory & education, L. A. Wallace, Atlantic Steel Co.; by-laws, Vernon Smith, LeTourneau Co.; advisory committee, O. K. Weatherwax, Gulf Oil Corp.; W. P. Rocker, Southern Spring Bed Co.; and A. C. Keiser, The Texas Co.

More than 160 persons attended the Fifth Annual Dinner Meeting held at the Druid Hills Country Club in Atlanta, at which time the election was held.

Dr. Thomas Promoted

Dr. Charles Allen Thomas of St. Louis, vice president and technical director of Monsanto Chemical Co., has been elected executive vice president at a meeting of the company's board of directors, it is announced by Edgar M. Queeny, chairman of the board. Concurrently, Felix N. Williams of Springfield, Mass., vice president and general manager of the company's Plastics Division, was elected to the board of directors.

Five additional vice presidents were elected to the board: Josiah B. Rutter of Everett, Mass., general manager of the company's Merrimac Division; Dr. C. A. Hochwalt of Dayton, director of the Central Research Department; William W. Schneider of St. Louis, secretary of the company and head of the legal department; Daniel M. Sheehan of St. Louis, comptroller, and C. A. Wolfe of St. Louis, director of purchases and traffic.

District Manager

H. C. Wallace has been appointed by Air Reduction Sales Co., 60 E. 42nd St., New York 17, N. Y., as manager of the company's Louisville district, according to a recent announcement by H. F. Henriques, general sales manager. Mr. Wallace succeeds R. S. Moore, recently deceased. Mr. Wallace started with Air Reduction in 1929.

New Beginning in Labor Relations

(*Continued from page 24*)

Special Powers for Coal

The law vests in the President broad special powers for dealing with strikes or interruptions "which imperil or threaten the national health or safety." After a 60-day cooling-off period under the injunction, the NLRB may submit the last employer offer to a secret ballot of all employees involved in the dispute. This gives the workers a chance to express themselves on the issues, apart from the views of the union leaders.

All benefit trust funds covered by labor contracts must be jointly administered by management, workers and public representatives.

All political contributions by labor organizations (for federal offices) must be reported, exactly as has prevailed for corporations since 1925 under the Corrupt Practices Act.

Industry-wide Bargaining

Although the new law does not forbid industry-wide bargaining on a voluntary basis, it does limit the power of national unions to prolong a strike in plants where a majority of the employees are agreeable to accepting a settlement lower than that demanded in the industry-wide negotiations. If a thousand plants are involved in negotiations, for example, any one management unit may settle individually by agreement. The NLRB then is required by law to supervise a referendum in that plant or unit, regardless of the status of the overhanging industry-wide negotiations. If a majority of the plant's employees vote affirmatively, that portion of the strike may be settled separately.

This section also could have immediate impact upon the coal situation, in which the Southern operators contend they could reach an agreement promptly with their own employees, if only the dispute could be disentangled from the national tug-of-war.

The old three-man NLRB is liquidated and the new MLRB established as a five-man labor court. All administrative matters are under the jurisdiction of the new General Counsel, who controls the field staff, hearings, findings, and orders. The Board itself functions primarily as a review body, thus separating the essential functions of prosecutor, judge and jury.

Under the old board, cases often were developed, heard and decided by the subordinate examiners, with only *pro forma* ratification by the responsible board members. This routine was the basis of the bitter charge that NLRB was in truth an evil trinity of policeman, judge and supreme court. Never in all the history of Anglo-Saxon jurisprudence did such humiliating and disgraceful proceedings occur in the name of justice as marked the nadir of NLRB lawlessness, in the first phase of its official conspiracy with the Communist-dominated CIO. It was in those days, and under such federal protections, that world Communism moved in to take over direction and control of a considerable part of the American labor

(*Continued on page 48*)

Millions of calls are made-to-order every hour

Every telephone call is made-to-order on the spot.

This is not a mass production industry. There's no way to manufacture a lot of telephone calls in advance and store them for future need.

Your call may be across the street. The next may be across the country. It may be the middle of the day or the middle of the night.

But whenever you call and wherever you call, the telephone company must be ready. It must — in a matter of seconds — provide the people and equipment to carry your voice to any one of millions of other telephones near or far.

And do the same thing for millions of other people every hour.

BELL TELEPHONE SYSTEM

New Beginning in Labor Relations

(*Continued from page* 46)

movement. Now, for the first time in twelve years, the workers themselves are armed with some protections against this revolutionary encroachment. Under the new law, any union member may invoke the protection of the MLRB whenever he feels that he is being pushed around unduly by the thicker necks in his union. The old business of actually or literally clubbing the dissenter to insensibility in the local union meeting is now illegal.

Congress Watches MLRB

Another section of the law establishes a temporary joint committee of the House and Senate to keep a watchful eye on labor-management relations until the end of 1948, with a view to suggesting a permanent labor relations code for consideration by the eighty-first Congress. Senator Ball, of Minnesota, and Rep. Hartley, of New Jersey, two of the principal authors of the 1947 act, are destined to head this commission of inquiry. It will ride herd on any reluctant administrators of the new law. Employers who find themselves being ploughed under by actions, rulings or tactics of such federal administrators may seek the immediate and direct protection of Congress.

This arrangement provides a welcome recourse against those eager-beaver excursions into administrative law-making which so often characterize our labor bureaucracy. It appears a particularly sound device for the period immediately ahead, when the law is to be applied in its initial phases by administrators already vigorously committed to the proposition that the statute is unsound and unworkable. The mere existence of the Congressional Commission means that no one will be compelled to submit to the imperious bully-ragging which so long served as the principal enforcement weapon of the discredited NLRB.

Coast Line Head Lauds Southeast

IN announcing progress of plans for Atlantic Coast Line Railroad to take over the Florida East Coast Railway, C. McD. Davis, Atlantic Coast Line president, reiterated his oft-expressed confidence in the future of the territory served by the Coast Line in the six Southeastern states.

He pointed out that growth and development of the territory has been rapid, and that development of the east coast of Florida in recent years has fully kept pace with the rest of the South.

The projected merger, which now awaits only approval by the Federal Court to become final, has received the blessing of the Interstate Commerce Commission in a lengthy report.

The Commission recommends an extensive rehabilitation and improvement program for the East Florida line, involving large expenditures for stations, terminals, bridges, rolling stock and heavier rails. Under the plan approved by the Commission, the Coast Line will take up and continue the improvement program, initially in the hands of Court Trustees having jurisdiction over the Florida line.

Referring to the Commission's finding that the proposed merger would be in the public interest, Mr. Davis said: "It is the intention of the Coast Line management to serve the east coast of Florida and to attempt to develop that territory impartially and with the same care and

(*Continued on page* 68)

Southern Surplus Plants

(*Continued from page* 37)

Iron Ore reduction plant at Spaulding; operated by Republic Steel Corp.; designed to process red hematite ore; 14 acres; 79,000 square feet in concentration mill, sinter plant, screen house, crusher, and substation; equipment includes portable tools, transportation equipment, elevators, conveyors, sinter machine, rod mills, classifiers, locomotives and screens.

ARKANSAS

Ammunition plant, originally suitable for fabricating purposes, but later partially or totally depleted of fabricating machinery; substantial part of the general purpose forming and shaping machinery and tooling is believed to be still in place; operated by Ford, Bacon and Davis, Inc., during the war, this plant is located at Jacksonville and consists of 830 structures with about 400,000 square feet of floor space. Parts of this plant have been sold.

Chemical plant at Marche, 16 miles from Little Rock; operated during the war as Maumelle Ordnance Works; 7,000 acres, 332,000 square feet of operating area; numerous buildings generally of small size, the largest being 10,000 square feet; plant capacity is arranged in nine production lines, separated by 500 feet intervals; acid area embraces a synthetic nitric acid plant.

Explosives plant at Pine Bluff; operated by the Army as the Pine Bluff arsenal; about 15,000 acres; some 1,300 buildings; includes two ethylene generating plants, two sulphur monochloride plants, reactors, scrubbers, silos, airway conveyors and storage space; equipped with tilting and tumbling barrels, blenders, battery chargers, pelleting machines, riveters, hydraulic presses, scales, pumps, etc.; also agitator tanks, aftercoolers, blowers, degreasers, refrigeration units, fume washers, and numerous distillation and kettle equipment.

Chlorine plant at Pine Bluff; operated by the Army; complete chloring-caustic facility producing chlorine by the electrolysis of salt brine; 75 acres, combined floor space 60,000 square feet made up of seven buildings; equipped with 205 chlorine cells, air compressors, chlorine compressors, ammonia compressors, ammonia condensers, chlorine condensers, brine coolers, evaporators, filters and rectifiers.

FLORIDA

Ship repair yard at South Jacksonville; operated by Gibbs Gas Engine Co.; 25 acres; floating dock, traveling Gantry crane.

Citrus processing plant at Bartow; operated by Kuder Citrus Prod. Co.; one acre; processing building 3,200 square feet, boilerhouse same; designed for production of citrus feed molasses; equipped with evaporators, syrup tanks, steam boilers, etc.

Shipyard at Panama City; operated as Panama City Shipyard; 117 acres; 59 wood structures aggregating 578,000 square feet in area; fabrication shop, mold loft, machine shop, four warehouses, pipe shop, boiler shop, electric shop, cranes, and numerous metal and wood working machines.

Refrigerating and dehydrating plant at Ft. Myers; operated by Reed-Martin Laboratories; 11,200 square feet; usual equipment.

GEORGIA

Aircraft plant at Marietta; Bell Aircraft Corp.; 2,827 acres; 11 major buildings, 3,751,000 square feet; 38 minor buildings, 199,000 square feet; concrete floors, steel and brick upperstructure; complete complement of forming, shaping and assembly equipment, this plant is available for lease only.

Shipyard at Savannah; Southeastern Shipbuilding Co.; 219 acres; eight major buildings, 190,000 square feet; minor buildings about 120,000 square feet; sheet metal shop, fitting out shop, joiner shop, pipe and machine shop, mold loft and fabricating shop; six shipways, seven crane runways, four berths, one wharf; all equipped with necessary tools and equipment.

KENTUCKY

Steel plant facilities at Ashland; operated by American Rolling Mill Co.; designed to facilitate handling of molds and ingots; 12,000 square feet of area, steel framed, uncovered craneway, and one ingot extractor complete.

Steel plant at Newport; operated by Andrews Steel Corp.; designed for production of electric furnace steel ingots; 10 acres, about 230,000 square feet of floor area; buildings concrete and steel include electric furnace building, conditioning building, laboratory and office; equipped with electric furnaces, charging machines, ladles, diesel locomotives and complete testing equipment.

Gasoline refinery, 100 octane at Catlettsburg; operated by Ashland Oil & Refining Co.; about 101 acres; 33 buildings, floor area 62,000 square feet; equipped with thermofor catalytic cracking and treating unit; gas concentration unit, HF alkylation unit, and isomerization unit; tankage capacity — atmospheric 471,000 barrels, pressure 29,000 barrels.

Butadiene plant near Louisville; Carbide & Carbon Chemicals Corp.; produces own catalyst and also supplies steam and treated water to adjacent plants; 144 acres; 34 buildings, 139,000 square feet; structures are brick and concrete; machinery includes three separate units of Dowtherm heating units, vapor-phase converters, heat exchangers, stills, Filtros catalyst equipment and accessories.

Zinc mill at Marion; Corod Minerals Corp.; for milling zinc, lead, fluorspar; 31 acres; laboratory-office building one story frame, mill building, 10,000 square feet, also one story frame; crushing, pulverizing, and classifying unit, vibratory table, flotation, conditioning, drying and thickening units; laboratory and testing equipment.

Aircraft plant adjacent to Standiford Field at Louisville; Consolidated-Vultee Aircraft Corp.; designed for aircraft modification; 54 acres; 317,000 square feet in main building; over 40,000 square feet in other buildings; equipped with lathes, grinders, milling machinery and other tools, both stationary and portable, needed for the operations.

Acetylene plant four miles southwest of Louisville; National Carbide Corp.; one acre; generator building, and compressor building totaling 5,700 square feet; five carbide acetylene generator assemblies, five hopper connections, 700 five-ton carbide containers, ten carbide container cars, overhead crane and other essential tools and facilities.

Nitrogen plant, Louisville; National Carbide Corp.; consists of extension to other buildings, area 2,100 square feet; two decarbonizers, air compressor installation, nitrogen column with engine, generator, recording instruments, etc., nitrogen compressor, motor, cooler, storage tubes and recording instruments.

Synthetic Rubber plant, Louisville; National Synthetic Rubber Corp.; designed for production of Buna-S synthetic rubber; 45 acres; buildings: administration, pigment, reactor, recovery, rubber process, storage, machine shop; total area 98,000 sq. ft.; reinforced concrete and brick; equipment includes tank farm, reactor area, process area, recovery area, with all needed appliances.

Synthetic Laboratory, Louisville; National Synthetic Rubber Corp.; designed as pilot plant for research in synthetic rubber technology; includes process building, laboratory and warehouse; tanks, agitators, reactors, condensers, colloid mills, rubber mill, Banbury mixer, presses and requisite instruments.

Ammonia plant at Henderson; Atmospheric Nitrogen Corp.; 836 acres; thirty-five buildings, concrete, wood, corrugated iron and gypsum board construction; 233,028 sq. ft.; equipped with forges, grinders, shapers, milling machinery and other machine shop apparatus, pressure vessels, heat exchangers, cooling towers, gas generators, filters, reactors, condensers, activators and materials handling devices.

Grain salvage plant at Midway; Park & Tilford Distillers, Inc.; designed for production of feed from distillery waste; dryer building, pump house and cooling tower; triple effect evaporator, compressors, dryer, dehydrator, filtering and agitating machinery with accessories.

Grain salvage plant at Louisville; Park &

Tilford Distillers, Inc.; used for drying animal food recovered from distillery waste; dryer house, and pump house, combined area 8,000 sq. ft.; multiple effect evaporator, dehydrating machines, compressors, agitators, conveyors, etc.

Aluminum extrusion plant, Louisville; Reynolds Metals Co.; machine shop, finishing shop, press room, heat treater, grinding, cleaning, and office structures; extrusion presses, remelt furnaces; other furnaces of various types, straightening presses, draw benches, shape stretchers, laboratory and testing equipment.

Grain salvage plant, Greenbrier; Willow Springs Distilleries, Inc.; little over half acre, distillery house, evaporator house and machinery for recovery of distillery grain from waste; equipment includes bagging machine, traveling screen, filtering machine, conveyor, evaporator, etc.

LOUISIANA

Ordnance parts plant at Shreveport; J. B. Beaird Co.; one and three-quarters of an acre; one building, one story with mezzanines, structural steel and brick, 36,000 sq. ft.; lathes, grinders, milling machines, presses, welding machines, heat treaters, furnaces, forging machines, conveyors.

Butadiene plant at Lake Charles; Cities Service Refining Corp.; 53 acres; floor area 55,000 sq. ft. including 35 utility and functional buildings, generally one story of brick masonry structure; fitted with special equipment for processing petroleum into butadiene.

Synthetic rubber laboratory at Baton Rouge; operated by Copolymer Corp.; designed as pilot plant; includes process building, laboratory and warehouse; equipped with tanks, agitators, reactors, condensers, colloid mills, rubber mill, mixers, balers and requisite instruments.

Synthetic rubber plant, Baton Rouge; Copolymer Corp.; set up to make Buna-S rubber from Butadiene; 24 acres; 17 buildings, 112,000 sq. ft.; fitted with special equipment for polymerization of butadiene and styrene, such as tanks, vessels, mixers, kettles, filters, heaters, compressors, condensers, coolers, decanters, molds, balers, etc.

Shipyard, New Orleans; Delta Shipbuilding Co.; 145 acres; eight ways and crane runways, six outfitting docks and 50 buildings of concrete steel and wood; total building area 750,000 sq. ft.

Synthetic rubber plant at Lake Charles; Firestone Tire & Rubber Co.; designed as copolymer plant to make Buna-S rubber; 82 acres; total floor area 106,000 sq. ft.; equipment same as for previously listed Buna-S plants.

Ammunition plant, south of Minden; operated by Silas Mason Co.; 15,874 acres; 25 residences and 45,000 sq. ft. of operational buildings and about 140,000 sq. ft. of warehouse and other supplementary buildings; equipped with machine shop apparatus, screening, washing, drying, dipping, assembling, crimping crystallizing, evaporating and other requisite facilities.

Aviation alkylate refinery at Cotton Valley; Premier Oil Refining Co.; 31 acres; 12 buildings, 22,000 sq. ft.; equipment consists of dehydrogenation, alkylation, ethyl blending, apparatus; cooling tower, tank capacity 191,000 barrels atmospheric, 51,000 barrels pressure.

Catalyst plant, Baton Rouge; Standard Oil Co. of N. J.; slightly under two acres; floor are 13,000 sq. ft. calcinators, collectors, feeders, filter, hammer mills, pellet and pug mills, dryer, etc.

Chemical plant, Baton Rouge; Standard Oil Co. of N. J.; designed to augment production of aviation gasoline components and hydrocodimer; 18 acres; three buildings, 16,000 sq. ft., structural steel and brick; four frame buildings, 19,000 sq. ft.; refinery type equipment.

Butadiene plant, Baton Rouge; Standard Oil Co. of N. J.; 40 acres; 12 buildings, 30,000 sq. ft., brick, concrete and wood; fractionating equipment, extraction, dehydrogenation and refinery type apparatus; five steam generator units.

Toluene plant, North Baton Rouge; Standard Oil Co. of La.; 8 acres; control house, fomite building, seven minor structures, total 1,600 sq. ft.; embraces acid treating, fractionation, generating units and accessory facilities such as towers, exchangers, etc.

Synthetic rubber plant, Baton Rouge; Standard Oil Co. of N. J.; 39 acres; 23 refinery type buildings, steel brick and wood, total floor area 134,000 sq. ft.; production equipment of special refinery type with a series of towers, pressure vessels and equipment for the finishing process; designed to produce butyl type rubber.

MARYLAND

Acetylene plant at Beth-Fairfield; Air Reduction Sales Co.; two and a half acres; embraces a main building, forge shop, machine shop, sludge pond and several minor buildings; equipped with machine shop machines and tools, tocco units, draw furnaces, hardening furnaces, quench tanks, materials handling apparatus and accessory appliances.

Chloride of lime plant, Baltimore; Delta Chemical Mfg. Co.; 7,800 sq. ft. of land, building 50 by 100 feet, one story manufacturing, two story office; equipped with York refrigerating unit, and accessories.

Vegetable dehydration plant, Fruitland; John H. Dulany & Son; building of brick and tile, 27,500 sq. ft.

Aircraft plant, Hagerstown; Fairchild Engine & Airplane Corp.; 60 acres; total floor areas 646,000 sq. ft. in single building divided into sections; complete forming and shaping equipment and two 20-ton bridge cranes.

Steel parts plant, Baltimore; Koppers Company; 18 acres; main building 213,000 sq. ft., four others total around 7,000 sq. ft.; machine shop equipment, blast room, paint sprays, magnaflux unit, etc.

Aircraft plant, Middle River; Glenn L. Martin Co.; 78 acres; 22 buildings, combined area 2,959,000 sq. ft.; complete equipment for manufacturing airplanes including all types of machine tools, portable tools, etc.

Light metals plant, Halethorpe; Revere Copper & Brass, Inc.; 32 acres; steel and brick building 272,000 sq. ft.; designed to forge and extrude aluminum and magnesium; fully equipped for the purpose, including three 27,000 pound remelt furnaces. This plant is available except for minor portions sold to Baltimore County Commissioners.

Grain salvage plant, Baltimore; United Distillers, Ltd.; site leased; three story building steel and brick, 10,000 sq. ft.; dryers, screen, filter press, tanks, pumps, etc.

Glycerine plant, Baltimore; U. S. Industrial Chemicals, Inc.; land leased; building is extension of existing structure, 1,690 sq. ft.; four 10,000 gallon tanks, five pumps, three heaters and numerous items for distillation.

Alcohol plant, Curtis Bay; U. S. Industrial

(*Continued on page 52*)

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DuPont's Southern Progress

(Continued from page 35)

the original plant was soon expanded.

A second plant was built at Martinsville, Va. The latter, which came into operation late in 1941, is currently being expanded by the addition of a new unit.

From February, 1942, until after V-J Day, the entire production of nylon was allocated by the government for specific war needs. During that period, the expansion of manufatcuring facilities was limited to the requirements of the War Production Board.

No yarn in textile history has received such public attention as nylon. Almost overnight after its commercial introduction, nylon gained an important position in the market for ladies' hosiery yarn.

As a result of Du Pont's success in adapting nylon for use in other branches of the textile industry, tremendous interest was shown by weavers, knitters, rope and thread manufacturers, and braiders.

Only limited quantities have been available for such purposes up to this point. With the completion of the plant at Chattanooga and the rounding out of the Seaford and Martinsville plants, the company will be better able to meet the needs of the textile industry.

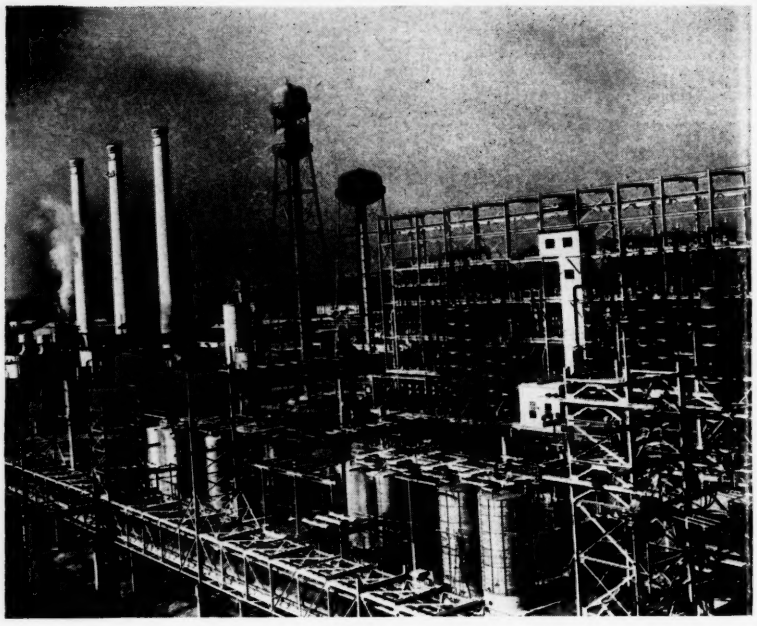
Martinsville Nylon Project

At the Martinsville, Va., plant a major project for the expansion of nylon production is already 78 per cent completed. Nylon for fine textiles and hosiery is being produced on a limited basis in the new unit. Present estimates indicate the new facilities, to cost approximately $10,000,000 when completed, will be ready to operate on a full production basis by the end of the third quarter of this year.

Buildings are of steel and masonry construction.

Sabine River Works

To provide more basic materials for this vastly expanded nylon yarn production projected at Chattanooga and Martinsville and to add capacity for the output of polythene, an outstanding plastic in the fields of electrical insulation and molded articles; and methanol, a basic industrial chemical, the company is building the new Sabine River Works, near Orange, Texas.



Above—DuPont's Sabine River Works near Orange, Texas.

Construction of this new plant on a 1000-acre tract on the Sabine River was started in 1945. The first unit of the works, which ultimately will require an operating staff of about 1000 men and women, is completed, and is already in limited production of nylon intermediates. It is expected that construction will be complete early in 1949.

From the introduction of nylon in 1938 until the beginning of operations at the Sabine Works, nylon was popularly described as being produced from coal, air and water. That description will have to be modified for natural gas and petroleum products will be used to an increasing extent at Sabine River Works.

Nylon "salt," the name given the chemical intermediate, has nothing in common with ordinary table salt except that both are white and both are formed by the familiar reaction between an acid and a base.

Table salt is a simple compound prepared from sodium hydroxide and hydrochloric acid, but nylon "salt" is made from two very complex chemicals known as adipic acid and hexamethylene diamine. The Texas plant will produce both of these compounds and then combine them to form the "salt."

In dry form, nylon salt is a white crystalline material, resembling the ordinary article used at the table. To facilitate its handling and to maintain its purity, this salt is dissolved in water for tank car transportation to yarn plants.

Plant at Belle, W. Va.

Production capacity is also being expanded at the Belle, W. Va., plant by the construction of additional units for making glycol, diglycolic acid, urea and hexamethylene diamine. Hexamethylene diamine is used in the manufacture of nylon intermediates, the increased capacity being required by the overall nylon expansion program.

Added urea capacity will increase the output of this basic ingredient of farm fertilizers and of many plastics. Glycol is used in anti-freeze compounds and diglycolic acid is a basic industrial chemical with many uses in the field of plastics.

Washington Bottom Plant

At Washington Bottom, near Parkersburg, W. Va., plant facilities for the expansion of the company's activities in the plastics industry are under construction. The new plant, of steel and masonry construction is now 38 per cent completed and is scheduled to be fully completed by the second quarter of 1948.

The Du Pont Company already operates one of the largest plastics

plants in the country, located on a sixty-four acre site at Arlington, N. J., and a smaller plant at Leominster, Mass. Neither of these locations provides sufficient space to accommodate the expansion in manufacturing facilities which it is now forecast will be required over the next several years.

The new plant site is on a tract of bottom land once owned by George Washington, who received it in a grant of 2,314 acres from Lord Dunmore, Governor of Virginia, in 1772.

Among the units being built at the new location are greatly expanded facilities for manufacturing nylon as a plastic in various forms, "Lucite" acrylic resin, and the new plastic, polythene. Construction on these units with the necessary service facilities started as soon as materials and labor become available for post-war developments.

Nylon has established itself in an outstanding way in the field of textiles and synthetic bristles. The war, however, delayed plans for wider use in the plastics field. Because of its high heat resistance and extreme toughness, work in connection with certain special war uses indicates its wide application in the general plastics field. The new plant will provide facilities for manufacturing nylon polymers, bristling filament, sheets, rods, tubes, and molding powders. Prior to the war "Lucite" molding powder had been adopted for a wide variety of uses.

Polythene, one of the new plastics being developed by the Du Pont Company, is now used extensively in the electrical insulation field and possesses outstanding advantages which should give it an important position in the plastics field generally. Adequate facilities to supply this plastic are being provided.

Waynesboro Plant

A project to expand capacity at the Waynesboro, Va., cellulose acetate plant and to construct two acid recovery units there is now about 50 per cent completed. All phases of the new construction are expected to be fully completed during 1948.

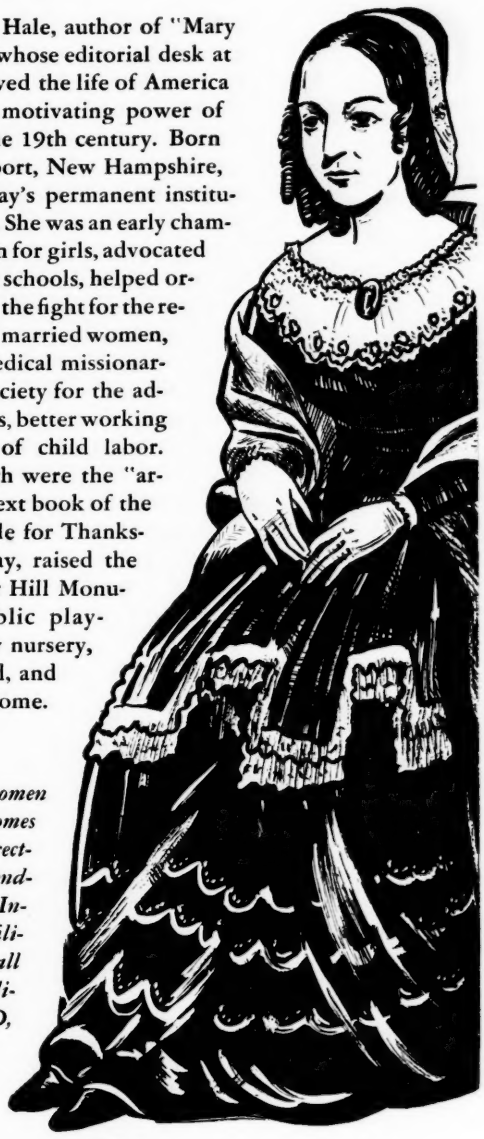
The plant expansion will increase production capacity for "Acele" Acetate Rayon yarn and staple for textile industries. This part of the Waynesboro building program includes additions to the powerhouse,

(*Continued on page 52*)

New Hampshire Personalities

SARAH JOSEPHA HALE

Sarah Josepha Hale, author of "Mary Had A Little Lamb", across whose editorial desk at GODEY'S LADY'S BOOK flowed the life of America for half a century was the motivating power of woman's development in the 19th century. Born October 24, 1788, in Newport, New Hampshire, she originated more of today's permanent institutions than any other woman. She was an early champion of elementary education for girls, advocated women as teachers in public schools, helped organize Vassar College, began the fight for the retention of property rights by married women, sent out the first women medical missionaries, and founded the first society for the advancement of women's wages, better working conditions, and reduction of child labor. Through her columns which were the "arbiter of the parlor and the text book of the kitchen", she was responsible for Thanksgiving as a national holiday, raised the money that finished Bunker Hill Monument, first suggested public playgrounds, began the first day nursery, organized the Seaman's Aid, and established the first Sailors' Home.



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It has been estimated that women own 40% of the 30,000,000 homes in this country and that they directly control 80.9% of income spending. The New Hampshire Fire Insurance Company and its affiliate, the Granite State, invite all women to investigate the facilities available in these SOUND, SOLID and SUCCESSFUL companies.

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FIRE INSURANCE CO.
Portsmouth, New Hampshire

DuPont Reports Southern Progress

(*Continued from page* 51)

the chemical building, solution preparation facilities, solvent recovery units, and to the spinning and shipping departments of the plant. Service facilities including the cafeteria and the men's change house are also being enlarged.

Upon completion the new acid recovery units will provide the most modern equipment and processes for the recovery of acetic acid. The recovered acid is used to make cellulose acetate used in the plant's production of cellulose acetate flake for plastics and rayon yarn.

The flake is shipped to plants of the company's plastics department where it is made into "Plastacele" cellulose acetate plastic molding powder, sheets, rods and tubes for the plastics industry. The Waynesboro plant processes cellulose acetate into "Acele" cellulose acetate yarn as continuous filament or staple for the manufacture of superior rayon fabrics.

Cellophane Expansion

Expansion of the Spruance Plant, near Richmond, Va., to increase capacity for manufacturing cellophane is now about 48 per cent complete and the new facilities are expected to be 100 per cent completed by the second quarter of 1948. The new buildings are of steel and masonry construction.

When completed the new units will vastly increase the output of cellophane cellulose film to meet the mounting demand for this highly transparent, strong, flexible, greaseproof, oil-proof, and air-proof packaging material.

Ground has just been broken initiating another sizable project to expand the chemical building and modernize equipment for making film at the company's cellophane plant at Old Hickory, Va. This job when completed sometime in 1948 will result in the employment of more than 100 men and women.

Introduced by Du Pont in 1924 as plain, transparent cellophane, this product is now produced in more than 60 forms, including moisture-proof film, the exclusive development of Du Pont research.

The introductory price of the plain, transparent type in 1924 was $2.65 a pound. By 20 successive price cuts, made in the face of rising raw material costs, research and development on process improvements by 1939 reduced this price to 33 cents a pound at which it sells today despite still further rises in the costs of the materials that go into its manufacture.

Du Pont's most recent contribution to its continuing development of this product is a new continuous process which packages frozen foods in cellophane, producing in one minute more than 40 transparent bags, sealed and ready to attract the eye of the shopper.

Du Pont cooperated in the development of a machine which applies production line methods to frozen food packaging. Hands do not touch the food at any step. Du Pont research provided the proper type of cellophane which is essential to the successful operation of the process.

Moisture-proof cellophane film is generally used for wrapping cigars, cigarettes, candies, bakery products and other food items. Plain cellophane is used for packaging such items as textiles, paper specialties and smoked meats where moisture protection is not needed.

Cellophane is also used in the fabrication of millinery braids, dress fabrics and curtain materials. It has also been adapted to craft uses, such as in hats, belts, bracelets, party favors and scores of other novelties. It is being used in several industrial applications including the covering for wire of large electrical motors.

James River Plant

A small plant for the manufacture of sulfuric acid for use in manufacturing processes at Spruance is being built at Bellwood, near Richmond, Va. The new unit, called the James River plant, is about 50 per cent built and is expected to be one hundred per cent completed during the coming autumn.

Surplus Plants

(*Continued from page* 49)

Chemicals, Inc.; designed to prepare grain by milling and cooking for fermentation; land leased; five story building, 15,000 sq. ft.; handling equipment, tanks and other special processing apparatus.

MISSISSIPPI

Oxygen plant at Pascagoula; Air Reduction Sales Co.; acre and a half; 8,600 sq. ft. building floor space; fractionating columns, reriming stoves, expansion engines, generators, compressors, mixers and other apparatus needed for the purpose.

Shipyard, Pascagoula; Ingalls Shipbuilding Corp.; 157 acres; five buildings, about 200,000 sq. ft. in all; locomotives, overhead cranes, mobile cranes, machine tools, sheet metal working tools, welding tools, shipways, runways and outfitting dock.

MISSOURI

Ammunition plant, Independence; Remington Arms Co.; 3,909 acres; seven major buildings, ranging in size from 19,000 sq. ft. to 420,000 sq. ft.; numerous special items for small arms shell loading, together with machine shop and handling equipment.

Aluminum powder plant, Shrewsbury; Metals Distintegrating Co.; 10 acres; office, warehouse, two processing buildings and garage; all of relatively small size; melting and atomizing furnaces, turbocompressors, vibrators, conveyors, etc.

Alcohol plant, Kansas City; National Distillers Prod. Corp.; 14 acres; eleven principal buildings, 96,000 sq. ft.; equipped with all units necessary to produce alcohol and recover feed stocks from waste.

Engine plant, Kansas City; Pratt & Whitney Aircraft Corp.; 394 acres; nine buildings, over 3,000,000 sq. ft.; designed to produce aircraft engines; originally equipped with all needed machinery, but part of this may have been sold. This is a multiple tenancy project, partly leased and subject to "standby" restrictions of the Navy Department.

Steel foundry, St. Louis; Scullin Steel Co.; 3.58 acres; four buildings, 100,000 sq. ft.; core machines, honing machines, hydraulic presses, ladle bales, molding, welding, grinding, hammering machines and conveyors.

Ore reduction plant, Fredericktown; St. Louis Smelting & Refining Co.; designed for processing cobalt, nickel, copper and lead ores; ore breakers, crushers, conveyors, ball mills, classifiers, flotation machines, pug mill, reverberatory furnace, filters, roster, etc.

Steel plant, St. Louis; operated by the Army; designed for production of armor piercing cores; equipped also to manufacture screw machine products with all adequate appliances for the purpose.

Ammunition plant, St. Louis; General Motors Corp.; 280 acres of plant site and 2,620

(*Continued on page* 54)

Transportation Equipment

(*Continued from page* 38)

Texas	8	.....	49,356,000
Virginia	2	.....	25,760,000
Total	70	.....	$232,390,000

New aircraft facilities:

Alabama	3	.....	$ 26,293,000
Florida	3	.....	3,953,000
Georgia	4	.....	813,000
Kentucky	2	.....	17,858,000
Louisiana	2	.....	43,241,000
Maryland	4	.....	13,354,000
Missouri	7	.....	108,524,000
North Carolina	3	.....	4 696,000
Oklahoma	5	.....	88,152,000
Tennessee	4	.....	9,288,000
Texas	9	.....	117,383,000
Virginia	2	.....	631,000
Total	48	.....	$434,186,000

These 118 new plants (70 shipbuilding and 48 aircraft) accounted for nearly all gains made by the South in the transportation equipment industry between 1939 and 1945. There were, however, other more modest, but at the same time important, additions to Southern plant structure devoted to turning out the products of this industry group.

Before the war there were four plants in the South engaged in loco-

(*Continued on page* 56)

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Coosa Valley Development

The Entire Community is Back of the Development

Talladega, Ala.

Southern Surplus War Plants

(*Continued from page 52*)

acres of woodland; eight principal buildings, varying from 259,000 to 596,000 sq. ft. in size; principal machinery: loading, annealing, canneiure, pickling apparatus, etc.

NORTH CAROLINA

Graphite electrode plant, Morganton; National Carbon Co.; 44 acres; 25 buildings, 344,000 sq. ft.; coke storage, handling equipment, milling and mixing machinery, extrusion press, furnaces, gas producers, numerous conveyors.

Shipyard, Wilmington; N. C. Shipbuilding Co.; 167 acres; shop and utility buildings, nine ways, three fingerpiers, marginal wharf.

OKLAHOMA

Gasoline refinery, at Duncan; Associated Refineries, Inc.; 80 acres; 96,000 sq. ft. in 40 utility and functional units, housing catalytic cracking and gas concentration units, alkylation and isomerization apparatus.

Carbon black plant, Guymon; Cabot Carbon Co.; 59 acres; 192 burner buildings, shop building and warehouse; 96 channel type carbon black machines, pulverizers, conveyors, etc.

Potassium perchlorate plant, Claremore; Cardox Corp.; two acres; building 26,000 sq. ft.; cells, evaporators, crystallizers, centrifuges, electrodes, pumps, etc.

Toluene plant, Ponca City; Continental Oil Co.; five acres; three buildings, 2,400 sq. ft.; facilities for separation, extraction, heating, etc.

Aircraft plant, Oklahoma City; Douglas Aircraft Co.; 334 acres 1,654,000 sq. ft. in assembly area, 600,000 sq. ft. in other sections; full complement of machine tools and other equipment requisite for aircraft construction.

Aircraft plant, Tulsa; Douglas Aircraft Co.; area and facilities practically identical to those of Oklahoma City plant.

Zinc plant, Henryetta; Eagle-Pitcher Mining & Smelting Co.; 20 acres; 11 buildings, 46,000 sq. ft.; zinc block furnaces, retorts, blast gates, molds, mold cars, screens, crushers and other equipment required for production of metallic zinc.

Aircraft plant, 12 miles southeast of Oklahoma City; about 149 acres and similar in size and equipment to Mingo Station plant.

SOUTH CAROLINA

Alumina plant at Harleyville; Ancor Corporation; 195 acres; 16 buildings totaling 63,000 sq. ft.; designed to produce alumina from South Carolina clay; completely equipped for clay treatment through a sinter process; crushing and milling machinery, sintering, leaching, dissilication, pumping, hammering, vibratin and conveyin apparatus.

Ferro-Silicon plant, Charleston; Pittsburgh Metallurgical Co.; little over one acre; building floor space 56,000 sq. ft.; reduction furnaces, casting machine, crushing and screening plant, ladles, hoists, 25 ton diesel locomotive, electric handling equipment, six conveyor systems.

TENNESSEE

Aircraft service, Nashville; Consolidated Vultee Aircraft Corp.; one building on 19 acre leasehold; used principally as office and cafeteria.

Chemical plant, Columbia; Monsanto Chemical Co.; 11 acres; manufacturing building 6,700 sq. ft. with several minor structures; ammonia compressors, condensers, receivers, precipitators, rectifiers, hoists and conveyors.

Acetic acid plant, Kingsport; Tennessee Eastman Corp.; 135 acres; 540,000 sq. ft. of floor area; ball mill, columns exchanger and all apparatus required to produce acetic acid and acetic anhydride.

Explosives plant, Kingsport; Tennessee Eastman Corp.; 6,412 acres; 2,280,000 sq. ft. of structure area with tank farm additional; columns and instruments similar to other explosives plants previously described.

Activated carbon plant, Columbia; National Carbon Co.; 50 acres; main building 78,000 sq. ft., several minor structures; pug mill, mixers, roasting ovens, oxidizer and accessories, conveying appliances, etc.

Aircraft parts plant, Memphis; McDonnell Aircraft Corp.; 10 acres; factory building about 65,000 sq. ft., other structures 28,000 sq. ft.; full complement of machine tools.

Carbon electrode plant, Columbia; National Carbon Co.; 21 acres; eight buildings, 155,000 sq. ft.; mixing, forming, packing and conveying equipment.

Cold storage plant, Nashville; Polar Cold Storage, Inc.; designed as sub-zero freezing plant; four acres; building 160 by 800 feet; refrigerating machines, condensers, etc.

Explosives plant, Chattanooga; Volunteer Ordnance Works; Army operated; 8,500 acres; 479 buildings of various types and sizes including 200 magazines; equipped with machine tools, storage and shipping facilities.

TEXAS

Aircraft plant, Fort Worth; Consolidated Vultee Aircraft Corp.; 432 acres; main building 2,954,000 sq. ft.; fully equipped for aircraft production as previously described.

Zinc plant, Dumas; Amer. Zinc Co. of Illinois; designed to augment operator's facilities for production of retort slab zinc; 160 acres; 136,000 sq. ft. of floor space mostly in 15 major structures; horizontal retort furnaces and accessory apparatus.

Anhydrous ammonia plant, near Etter; Shell Union Oil Co.; 8,325 acres; 369 buildings, 844,00 sq. ft.; towers, tanks and other essential equipment.

Carbon black plant, near Seagraves; Columbian Carbon Co.; 160 acres; 180 burner buildings, each 1,392 sq. ft.; channel tables, scraper assemblies, collecting hoppers, conveyors, pulverizers, etc.

Tank engine plant, Garland; Continental Motors Corp.; 104 acres; factory 193,000 sq. ft., other structures 49,000 sq. ft.; machine tool equipped with possibility some may have been removed.

Rice processing plant, Houston; Converted Rice Co.; two acres; 35,000 sq. ft.; accumulator, aspirators, attrition mill, bag machines, feeders, conveyors, etc.

100 Octane gasoline refinery, Pasadena; Crown Central Pet. Corp.; 8 acres; 40,000 sq. ft. building floor area; usual refinery equipment.

Ordnance foundry, Houston; Hughes Tool Co.; designed and well equipped for production of centrifugally cast, rough machined and heat-treated materials; 124 acres; 597,000 sq. ft.

Gasoline refinery, Houston; Eastern States Pet. Co.; 33 acres; 18 buildings, 41,000 sq. ft.; all necessary units for the purpose as described for other refineries.

Synthetic rubber plant, Baytown; General Tire & Rubber Co.; designed to make Buna-S rubber, and equipped as previously described for the purpose; 47 acres; 159,000 sq. ft.

Synthetic rubber plant, Borger; B. F. Goodrich Co.; designed for Buna-S rubber, as next above; 81 acres; 215,000 sq. ft.

Synthetic rubber plant, Port Neches; Firestone Tire & Rubber Co.; same as previously listed plants; 124 acres; 560,000 sq. ft.

Synthetic rubber plant, Houston; Goodyear Rubber Corp.; same as previously listed; 190,000 sq. ft.

Butanes plant, Driscoll; Great Southern Corp.; 40 acres; 5,700 sq. ft. floor area; equipped for stabilizing, absorption, and distillation processes, with accessories.

Gasoline refinery, Corpus Christi; Great Southern Corp.; 30 acres; 31,000 sq. ft.; usual refinery equipment.

Butanes plant, Agua Dulce; Great Southern Corp.; 29 acres; 6,400 sq. ft.; equipped similarly to Driscoll plant.

Ordnance plant, Houston; Hughes Tool Co.; 60 acres; 42 structures, largest 402 feet by 122 feet.; shot blasts, furnaces and full complement of machine tool; a portion of the equipment, however, may have been removed.

Butadiene plant, Baytown; Humble Oil & Refining Co.; 81 acres, 91,000 sq. ft.; usual functional units.

Synthetic rubber plant, Baytown; Humble Oil & Refining Co.; 58 acres, 165,000 sq. ft.; equipped same as plants previously listed.

Explosives plant, Karnack; Longhorn Ordnance Works; 18,000 acres; 580,000 sq. ft.; special equipment for anhydrous ammonia, Ammonia oxidation, nitric acid concentration and sulfuric acid concentration.

Ammunition plant, Texarkana; Lone Star Ordnance Plant; 18,000 acres; 2,633,000 sq. ft.; apparatus for crystallization, evaporizing, precheating, etc.; presses, crimping machines, pelleters, primer inserters, etc.

Toluene plant, Beaumont; Magnolia Pet. Co.; 18 acres; 15 buildings, 22,000 sq. ft.; feed preparation unit, azeotropic distillation unit, acid treating and rerun units.

Aircraft plant, Dallas; Lockheed Aircraft Corp.; 48 acres; two hangar buildings, 284,000 sq. ft. in all, two warehouses and 22 other buildings; plant designed and equipped for aircraft modification.

Power plant, Texas City; Monsanto Chemical Co.; one acre; 16,000 sq. ft.; boilers, steam turbines, electric generators.

Charcoal blast furnace, near Rusk; McCrossin Engineering Co.; 103 acres; 15,000 sq. ft.; designed to produced charcoal pig iron and chemicals derived from hardwood, such as caustic acid, methanol and wood tar; especially equipped for the purposes.

Butadiene plant, Port Neches; Neches Butane Prod. Co.; 317 acres; 142,000 sq. ft.; equipped with special towers, pressure vessels, heat exchangers, etc.

Aircraft plant, Grand Prairie; North American Aviation, Inc.; 272 acres; 85 buildings, 900,000 sq. ft.; machine tool complement and all accessory apparatus required to produce aircraft.

Isopentane plant, Texas City; Pan American Refining Co.; seven acres; 5,800 sq. ft.; towers, pressure vessels, compressors and instruments.

Copper plant, El Paso; Phelps Dodge Corp.; buildings totaling 227,000 sq. ft. are extensions to operator's property; equipment includes hoists, looping and slitting machines, motors, tanks, gasoline locomotive, drills, air hammers, etc.

Butadiene plant, Borger; Phillips Pet. Co.; designed for production of butadiene for use in synthetic rubber; 486 acres; 198,000 sq. ft.; preheating furnaces, heat exchangers, towers, pressure vessels, etc.

Engine plant, Houston; Reed-Roller Bit Co.; 52 acres; 25 buildings area each from 14,000 sq. ft.; machine tool equipment may have been partly removed.

Gasoline refinery, Texas City; Republic Oil Refining Co.; 15 acres, 51,000 sq. ft.; usual refinery equipment.

Butadiene plant, Houston; Sinclair Rubber Co.; 272 acres; 160,000 sq. ft.; usual equipment.

Fertilizer plant, on Houston Ship Channel; Southern Acid & Sulphur Co.; 16 acres; 86,000 sq. ft.; conveyors, feeders, grinders, separators, condensers, compressors, transformers, etc.

Gasoline refinery, Texas City; Southport Pet. Co. of Delaware; 35 acres; 19 buildings, 28,000 sq. ft.; usual refinery units.

Ordnance plant, Steeltown; Texasteel Mfg. Co.; 23 acres; fabricating building 36,000 sq. ft., other auxiliary structures; fully machine-tool equipped.

Shredded steel plant, Houston; Texas Shredding Co.; designed to produce shredded steel from tin cans; one acre; building 2,800 sq. ft.; cutting, handling, baling equipment.

Tin smelter, Texas City; Tin Processing Corp.; 50 acres; 17 buildings, 274,000 sq. ft.; special apparatus for the purpose, including laboratory testing equipment.

Shipyard, Houston; Todd-Houston Shipbuilding Corp.; 342 acres; main shop 185,000 sq. ft., with smaller auxiliary structures; nine shipways and marginal pier; equipped with machine tool complement.

Carbon black plant, Odessa; United Carbon Co.; 425 acres; 416 burner buildings; usual equipment.

VIRGINIA

Alcohol plant, Belle Meade; Belle Meade Distilling Corp.; this plant is an augmentation of operator's existing property; structure 1,000 sq. ft., housing dephlegmotor, condensers, coolers, still, pumps, etc.

Ammunition plant, Pulaski; Hercules Powder Co.; 3,845 acres; 962,000 sq. ft.; fully equipped with machine tool facilities.

Ore reduction plant, Paytes; Panaminas, Inc.; nine acres; 7,200 sq. ft.; pumps, compressors, hoists, crushers, flotation machines, classifier, feeder, thickener, filter, etc.; designed to produce zinc, lead and copper sulphide concentrates.

Explosives plant, Radford; Army operated; over 4,000 acres; 1,145 buildings of various types; 2,800,000 sq. ft. floor area; equipped with oleum plant complete, acetone concentrating unit, activated carbon recovery system, agitators, rectifiers, etc.

WEST VIRGINIA

Styrene plant, at Institute; Carbide & Carbon Chem. Corp.; six acres; 43,000 sq. ft.; conversion system, reactors, compressors, distillation system, calandrias, condensers, separators, evaporators, etc.

Butadiene plant, at Institute; Carbide & Carbon Chem. Corp.; 50 acres; 300,000 sq. ft.; distillation system, chemical unit system, heating, catalyst manufacturing, water treatment and auxiliary systems.

Chlorine products plant, New Martinsville; Army operated; 84 acres; 110,000 sq. ft.; acetylene generators, overhead cranes, refrigerator units, compressors, reactors and other required apparatus.

Ammonia plant, Morgantown; Morgantown Ordnance Works; 826 acres; 478,000 sq. ft.; by-products ovens, distillation equipment, quenching station, precipitators, cooling coils, decanter tank and other requisite equipment.

Synthetic rubber plant at Institute; United States Rubber Co.; for production of Buna-S rubber and equipped as previously described for other such plants; 36 acres; 170,000 sq. ft.

Radio tube plant; Fairmount; Westinghouse Elec. & Mfg. Co.; 20 acres; 108,000 sq. ft.; numerous items of special equipment, including glass lathes, glass tubing cutter, flare machines, bulb washing and annealing equipment, ovens, towers, etc.

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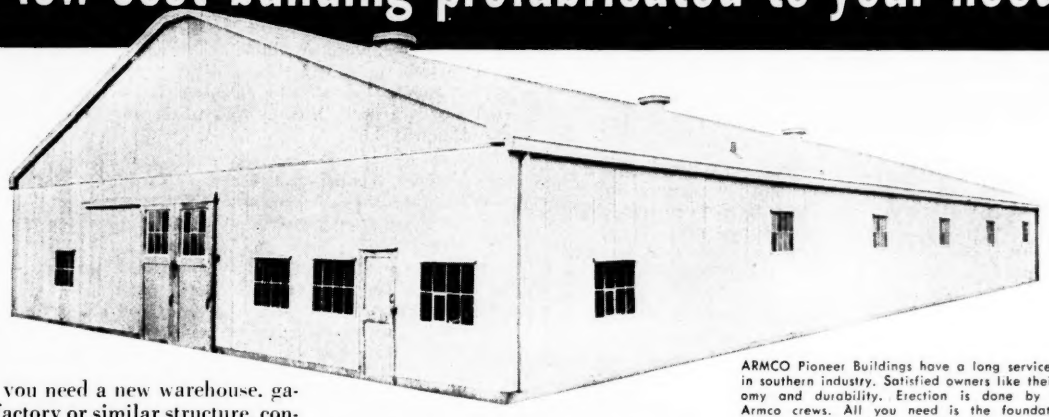

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ARMCO PIONEER STEEL BUILDINGS

Southern Business Outlook

(*Continued from page* 32)

president of Armstrong Cork, in connection with the company's decision to locate their twentieth plant at Dallas.

He said the company has studied the growth of the Southwest and has been impressed with the advantages of Dallas as a manufacturing and distribution center. The firm has maintained its Southwest headquarters in Dallas for many years.

Armstrong has been scouting for an ideal location since early last year. Rock Island Lines agreed to spend $40,000 on building a track into the industrial site north of Dallas which promises extensive development soon in the vicinity of the Armstrong location.

No sooner had the Verson Manufacturing Company completed its new plant on the south side of Dallas when its president of the board, David C. Verson, announced from his Chicago office that expansion was immediately in line.

Producers of stainless steel cooking ware, sinks and bathtubs, the Verson firm will seek through the expansion to handle the tremendous rush of orders that have hit the small Dallas factory which is second in size to the Verson All-Steel Press Company at Chicago, makers of dies, jigs and machinery. The enlarged Dallas layout will employ an estimated 600 within a month's time and use about 40,000 tons of sheet steel next year, John Verson, president, said.

A $500,000 contract for fixtures has been closed. Robert F. Jones is general manager of the Dallas plant.

Application is with Interstate Commerce Commission for a merger of the Santa Fe Trail Transportation Company, Wichita, Kan.; Continental Bus System Inc., Fort Worth, and Dixie Motor Coach Corporation, Dallas. Applicants state the new corporation would be called the Transcontinental Bus System Inc., headquartering at Dallas, with no changes contemplated in policies of the firms, personnel or routes.

One of the first international loans ever accomplished in Dallas was completed early in June when Dallas Rupe & Son, investment brokers, financed a $2,000,000 loan to Pablo Bush and associates of Mexico City. The loan will be used to finance automobile, truck and tractor sales and household appliances in Mexico. Early approval by state and Washington officials is expected.

Horvath Mills Inc., New York, delivered a hard blow to the textile industry in North Texas when firm officials ordered the almost sixty-year-old mill at Dallas closed after abandoning their plans for moving Eastern and Dallas machinery into the wartime Continental Motors Plant at Garland.

Mill officials explained a recession in soft goods as the cause of the shutdown in Dallas. The 309 looms will be moved to the Fort Worth mill. Horvath still operates mills at Waco and at West in McLennan County, Texas.

F. W. Brunken, Dallas mill manager, said an inadequate water supply at Garland disrupted negotiations with the War Assets Administration for the Garland plant, which National Equipment & Supply Company is bidding for now.

The Todd Company, manufacturers of checks, payroll systems, bank supplies, check writing and signing equipment, has invested $250,000 in a new plant at Dallas which will double the firm's output for banks and commercial customers in the Southwest.

Mel Rose, men's clothing manufacturer at Dallas, has been elected president of the new Dallas Men's Apparel Manufacturers, a unit inside the Dallas Manufacturers and Wholesalers Association. The organization represents an annual production of men's clothing of $20,000,000. Firm members include Byer-Rolnick Hat Company, Higginbotham-Bailey Company, Mel Rose Manufacturing Company, Willard Hat Company, Ripley Shirt Company, Rolnick Hat Company, Frontex Company, Haggar Company, Alpine Sportswear Inc., B & G Sportswear Ltd., and Sweet Manufacturing Company.

Elimination of congested freight traffic in the city area of Houston is foreseen in the $2,000,000 change planned for Houston Belt & Terminal Railway facilities which would divert through traffic around the city.

The facilities are owned by Missouri-Pacific, Santa Fe and the Burlington Rock Island Railroads. P. J. Neff, president of Missouri-Pacific Lines, said negotiations are almost finished for acquiring 300 acres about six miles northeast of the city to be used as a new freight yard.

The change will clear the lines for more important deliveries in and out of the city. Neff said the railroads acted in view of the tremendous industrial growth of Houston, an increasing port business and the rapid expansion of the city. Increased fruit, chemical and manufactured goods traffic also prompted the action.

The railroads suggested that the yards and round-house facilities in the city could be better developed or used by individual industries.

Installation of machinery will start immediately at the new Houston location of Bowers Battery & Spark Plug Company, Reading, Pa. C. P. Bowers, president, announced that the plant will manufacture an average of 1,000 batteries per day and employ an estimated 125 people.

Bowers leased for ten years a building formerly occupied by Cameron Iron Works for production of war materials and equipment. The G. H. and H. R. R. will serve the site.

A $100,000 expansion program is slated for the Technical Instrument Company, manufacturers of geophysical instruments.

C. W. Bocock, owner, announced that a new fireproof building housing offices and plant has been designed. The firm also produces specialties for oil exploration.

Shipments out of the Port of Houston during the first four months of this year jumped 18 per cent over the same period for last year. The Houston Maritime Commission said wheat, cotton, metals and mine products headed the export items.

The huge Consolidated Vultee Aircraft Corporation factory at Fort Worth opened its hangar doors in June and showed Southwest business men, industrialists and Army Air Force officers how its time will be occupied for the next few years.

On display was the giant B-36 which Consolidated will be building for the Army Air Force until at least the end of 1949. The nation's air arm has ordered 100 of the super bombers. The aircraft plant has thirteen on the assembly line and should taxi out the first of a limited number by July 1.

The plane, which requires about 11,000 employees at the plant, is designed to carry 10,000 pounds anywhere on earth and return without refueling. Harry Woodhead is president of the firm.

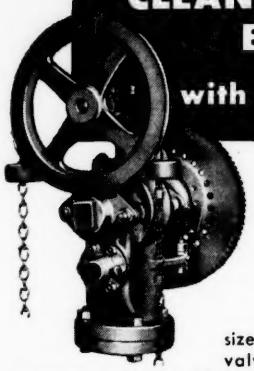
Transportation Equipment

(*Continued from page* 54)

Georgia, Maryland, and Virginia. There were no additions to this group during the 1939-1945 interval. There were, however, important additions to plant structure engaged in turning out other types of railroad rolling stock such as cars of various types and rolling stock accessories such as air brakes and wheels. Alabama enjoyed the addition of one such plant costing $396,000. Missouri added one, $522,000; Tennessee, one, $120,000, and Virginia, one, $27,000. Before the war there were 36 such plants in all in the South. The four additions not only mark an important step forward by Southern industry in a field that has remained relatively uncultivated, but also constitute a type of

(*Continued on page* 58)

CLEAN and PROTECT BOILERS with THE MARION KIND SOOT BLOWERS



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HOTELS

Transportation Equipment

(Continued from page 56)

investment that should be very profitable for the years ahead. Probably no shortage in the national economy is more acute than that prevailing in rolling stock of almost every description.

Minor expansions only have occurred recently in the remainder of the transportation equipment industry in the South. Such other elements of the industry consist of wagon and buggy building, construction of bicycles, motorcycles and similar perambulatory apparatus, and small boat building. In 1939 there were 23 plants of this nature in the South large enough to meet census requirements, and a substantial number of one-man shops operated in conjunction with other activities. No important additions during the war are of record.

Aside from those industry groups officially classified as transportation equipment enterprise, the manufacture of motor vehicles is a rapidly growing business in the South. For a great many years the Bureau of the Census has classified and reported motor vehicle manufacture apart and distinct from other transportation equipment. The impression is gaining ground in official circles that such a distinction is improper, and it is highly likely that the next official census will find automobile manufacture included in the transportation equipment group. In the light of this probability, consideration of motor vehicle production in the South is not out of order.

Priority restrictions during the war prevented widespread expansion of the motor vehicle industry. This was particularly true in the South. As soon as the war came to an end, however, this Southern industry began to show signs of intense activity. At least two of the nation's largest manufacturers of motor vehicles started construction of large branch operations in Southern cities immediately after V-J day. Several of these plants are now in full operation. In 1945 the South recorded a higher ratio of increase in motor vehicle registration than any other section of the country. This points to an expanding market that

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could well support a manufacturing center of major proportions. Freight probably plays a higher part in the consumer cost of motor vehicles than in that of any other single commodity. Plants capable of fabricating automobiles from start to finish in the center of such consumer demand as the South holds promise of affording are well worthy of thoughtful consideration.

Before the war the South had only 137 of the 1,054 factories of the nation engaged in making auto equipment. Most of those plants were small. None were completely integrated. With needed materials at hand in the South, and with a labor force indoctrinated by war effort in the technical skills essential to fabrication, the magic of immediate markets would appear to be a prime incentive for enlarging such plants as exist, and for adding the others required to round out the industry in full integration.

The same things can be said of the aircraft facilities in the South. While there is admittedly a surplus of such facilities at present, the rate at which Southern towns and cities are improving and expanding airway conveniences gives proof that the Southern public is airminded, and that the enterprise of fabricating aircraft has a bright future in store.

This is the fifth of a series of staff articles appearing in the MANUFACTURERS RECORD *showing the growth of the major manufacturing enterprises in the South.*

Potomac Soundings

(*Continued from page* 12)

port.

"Reduced retail buying of apparel and textile products is slowly being felt at the manufacturing level. The better supply of clothing on retailers' shelves is the result of expanded production and of reduced consumer takings associated with the rise in prices. As many of the clothing shortages of the past year are being relieved, the rate of operations is being curtailed in some branches of the industry. This is the most evident in soft woolen goods and in women's apparel. On the other hand, output of some men's items and of women's housedresses is still relatively low and is short of demand at current prices.

"Total apparel production in 1946 was more than a fourth higher than in 1939. Women's, misses' and children's wear was two-fifths higher than in 1939 and men's and boys' wear was about one-fifth higher. Production of men's and boys' wear showed an upward trend during the year and was higher in the early months of 1947 than a year earlier.

"Paralleling the changes in clothing production is a shift in types of fabrics woven. In cotton goods, the trend is towards lower output in coarse yarn fabrics and increased output of other types of cotton cloth, such as prints used for women's housedresses. The woolen industry is shifting to increased production of worsteds, but the peak demand for all types of woolens appears to be past and some decline in over-all production is indicated.

"In 1946 total consumption of cotton, wool and rayon was more than two-fifths larger than in 1939 and the textile industry operated at peak peacetime levels during the entire year and in the first part of 1947.

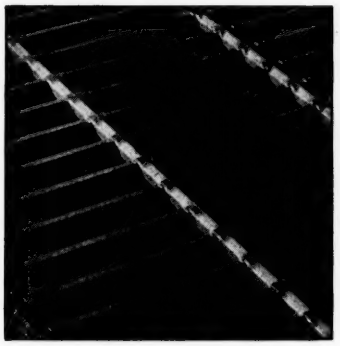
"Consumption of cotton in 1946 was one-third larger than in 1939 and more than one-fifth above consumption in the highest prewar year.

"In contrast with the rise of less than 10 per cent in unfinished or gray cotton goods production the output of finished cotton cloth was 40 per cent higher in 1946 than in 1939.

"Per capita consumption of wool in 1946 exceeded the wartime peak in 1943 when more than half of the total consumption went for military purpose, and was more than double consumption in 1939.

Average Mill Margins at 50 Cents

"As a result of the shortage in unfinished fabrics, or gray goods, the gross margin between the price of a pound of raw cotton and of the price of unfinished cloth has steadily widened. In the prewar period, 1935 to 1939, mill margins on 17 types of cotton cloth ranged from about 10 cents to 15 cents. In 1939 mill margins averaged 11.7 cents. After rising slowly in 1940 they jumped to around 20 cents in 1941. They were stabilized at this level until the spring of 1946 when prices were advanced to cover higher labor and raw cotton costs. By October 1946, the peak of the bull market in raw cotton, average mill margins had increased to 31 cents; then, as the price of raw cotton declined and price ceilings were lifted, mill margins jumped to nearly 50 cents in December and have remained above this level during the first four months of 1947."



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Consolidated Vultee Plant

(*Continued from page* 33)

capable of producing 1,000 gas and electric kitchen ranges and 400 frozen food storage units per day was purchased. After many months of planning, working and waiting the appliance factory was complete and in operation.

Now tons of aluminum, steel and other raw materials arrive at the plant over the new $250,000 railroad spur. There they are unloaded by an overhead crane and start their journey through the shears and forming presses; then up the inclined endless belt conveyors to the main factory floor, where they are dispersed to the varied finishing processes.

All parts to be porcelain enameled are passed through the automatic pickling machine; then to the spray rooms where the liquid enamel is applied by automatic spray guns as parts pass by on motor driven conveyors. Thence to the 100′ gas furnaces where enamel is fired at 1540° F., thus fusing the glass and metal together. Enameled parts are loaded into special dollies or carts and transported by a drag conveyor to the final assembly lines.

Parts that require spotwelding pass down gravity roller conveyors, receiving spotweld operations; or go by tote dollies to the special automatic welding machines. They are later loaded on the 350′ japan conveyor which carries them through a cleaning dip and baking process to the final assembly line.

The ranges are assembled on two final assembly conveyors each 300′ long. These conveyors are sideway or slat type and move at the rate of 4′ per minute. Parts are added to the range frame as it passes along, until at the end of the line a gleaming white kitchen range is completely crated and ready to ship. At this point the ranges pass through the side of the building, down an enclosed powered belt and into waiting railway cars.

The frozen food cabinets are also put together on mechanized conveyor lines. The refrigeration unit and the box lines merge into one at the start of final assembly. With units, covers and insulation in place, the finished cabinet goes through a two-hour test run to be sure it will hold a zero temperature. Sound test, inspection and crating follow. Then like the ranges, the cabinets move by powered conveyors into the box cars.

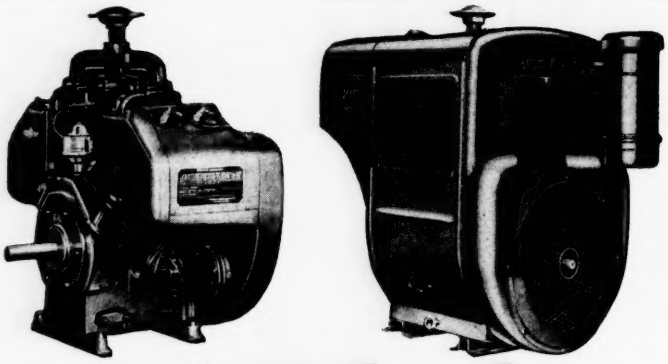
To utilize the remaining factory area, hundreds of fabrication and assembly tools, and some of the processing equipment formerly used in the production of aircraft, management decided to manufacture aluminum, city transit coaches (or buses, if you prefer). These coaches, of semi-monocoque construction, are very similar to the aluminum airplane fuselage, therefore the know-how and skills developed by employees during the war are used to the fullest extent.

Most of the war workers were local people who remained in Nashville and were happy to return to good paying jobs with excellent working conditions. This was important to the company as a source of experienced labor was assured.

The coach factory departments were laid out, and the machines were arranged to reduce materials and parts handling as much as possible. Parts move in the general direction of final assembly as they receive the various forming, processing and assembly work. All major assemblies such as underframes, side panels, front and rear vestibules and mid-body tops are built up as subassembly units adjacent to the main final assembly line. These large assemblies are built on a line production basis, timed and balanced to reach points of mating, via special overhead cranes, at the proper time for installation.

The massive over-head conveyor sytem in the high-bay area, installed to handle war planes, was reworked to carry the coaches through 15 of the 34 final assembly positions. Here the subassemblies with engines; wheels and axles; transmissions; windows, and other parts are added in their proper sequence. In the positions where the coach floor is installed and parts are located under

(*Continued on page* 63)



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Positive, trouble-free AIR-COOLING; dynamically balanced crankshaft mounted on tapered roller bearings, *front* and *rear;* extra-long connecting rods; light weight pistons . . . these are features that you can bank on for top performance.

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MILWAUKEE 14, WISCONSIN
World's Largest Builders of Heavy Duty Air-Cooled Engines

the RIGHT ACCESSORY plus SERVICE

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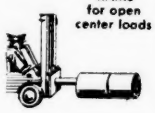

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To handle many types of materials *most* efficiently and economically, put Service MOTOWLIFT on the job. With special Service-developed accessories-interchangeable on the standard fork carriage—this fast-action Ford-powered fork lift truck is readily adapted to even the most unusual handling requirements. Write for complete details.

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M-5

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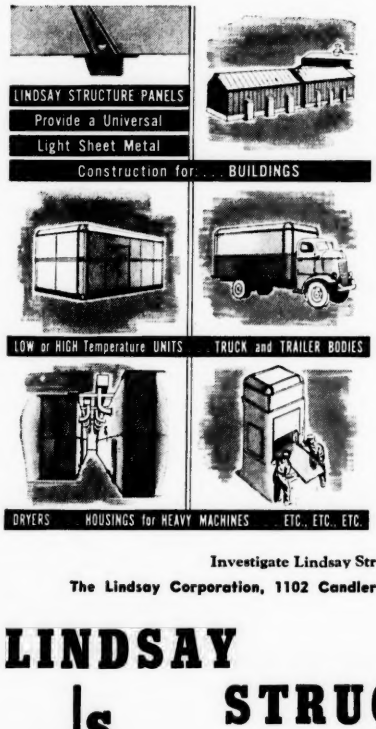

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Let us send you one Kewaunee Automatic Adjustable Chair or Stool to try 30 days without cost or obligation. Test it with workers of different heights—see how by simply lifting the seat your employee instantly gets "height that's right" seating. No fussing with screws, bolts or tools. Watch production go up when comfort comes in, through the use of—

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AUTOMATIC ADJUSTABLE CHAIRS and STOOLS

4 HEIGHT RANGES—12-15", 15-20", 18-26", 24-35"

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KEWAUNEE MFG. CO., 5070 S. Center St., Adrian, Michigan

South's Contract Value Rises

(*Continued from page* 27)

as quarters and service facilities; site improvement and outside utilities.

It is hoped that the alternate plan will result in more bids as, in the words of the Office of the Chief of Engineers, "it offers a more diversified field to the contractor, permits specialists to bid on certain jobs in which they are experts and involves, through smaller contracts, less risk to the individual contractor." Where the overall bid of a responsible contractor is low, it will be accepted, the War Department states.

Housing Expediter Frank R. Creedon continues to defend the activities of his office, at the same time emphasizing the decontrol policy since he assumed his duties. In a recent review, he said, "Since I took office, I got rid of every control that appeared to be hindering the construction of homes.

"The HH priority system was abolished when it had served its purpose. The super priority given for FPHA re-use housing has been eliminated. The channeling of plywood to the pre-fab industry has been stopped. Ceiling prices, which were no longer appropriate in a price decontrolled economy, were eliminated as to construction thereafter authorized."

The requirement that federal permits must be obtained to start construction of new homes has been abolished and the limit of allowable floor area was raised from 1,500 to 2,000 square feet, with the right of appeal for larger area where circumstances warrant, he said, as well as the restriction of one set of bathroom fixtures and the raising of the residential repair and remodeling allowance from $400 to $1,000.

Last month, Mr. Creedon for the first time made an estimate on the number of dwelling units he expects will be completed this year "if controls on residential construction are continued for a few more months." The figure is 1,000,000 units, of which 750,000 are estimated as the number of new permanent homes. "It will be the best year on housing completions since the middle twenties," he observed.

H. E. Foreman, managing director of the Associated General Contractors of America, sees "postwar development of state highway systems to the full extent contemplated by Congress in the Federal-Aid Highway Act of 1944" in the recently passed amendment to that law, which give the states an additional year in which to qualify for funds made available for highway construction in the first three post war years.

The 1944 bill allocated $500,000,000 a year for each of the three years. "With the extra period of grace made possible by the amendment," said Mr. Foreman, "more than $150,000,000 in federal aid could have been lost on June 30, 1947, for permanent, vitally needed road construction and improvement throughout the country."

"Materials are now in more plentiful supply and new construction equipment has become available," Mr. Foreman stated, and "highway contractors are now in a position to use their full skill and ability to build the roads the country needs, from six-lane controlled-access highways designed to meet the needs of large volume of heavy traffic into metropolitan centers, to secondary roads reaching out to agricultural areas."

Building trades apprentices are still on the increase. During April, the most recent month for which countrywide figures are available, forty-nine per cent of all learners hired were employed in the building trades. Time required for learning such a trade is placed at four years. However, the Department of Labor says an apprentice becomes a producer soon after going on the job.

The labor situation will probably be changed with passage of the Taft-Hartley bill, which places certain limitations on the closed shop, permits injunctions in jurisdictional strikes and boycotts, establishes more definite unfair labor practices, reorganizes the National Labor Relations Board, excludes supervisory employees from the bargain rights of the Wagner Act, requires unions to file reports to be eligible for recognition of the Board, prohibits contributions to federal elections and limits dues check-off to voluntary acceptance by the worker.

Some idea of the variety and type of industrial construction projects active in the news in the South last month may be had from the following list:

Gas system extensions, $50,000,000, Southern Natural Gas Co.

Lubricating oil plant, $30,000,000, Lake Charles, La., Cities Service Co.

Gas absorption plant extensions, $15,500,000, Winnie, Texas, McCarthy Oil and Gas Corp.

Railroad project, $12,000,000, West Virginia, Norfolk and Western Railway.

Coal pier, $6,500,000, Norfolk, Va., Chesapeake and Ohio Railway.

Refinery enlargement, $3,500,000, Tulsa, Okla., Mid-Continent Petroleum Corp.

Candy and food products plant, $2,250,000, Dallas, Texas, Curtiss Candy Co.

Modernization, $2,500,000, Bath, S. C., Bath Mills.

Chemical plant, $2,000,000, Morristown, Tenn., Stauffer Chemical Co.

Freight yards, $2,000,000, Houston, Texas, Houston Belt & Terminal Co.

Overall factory, $1,500,000, Oneonta, Ala., Blue Bell, Inc.

Generating equipment, $1,500,000, Sanford, Fla., Florida Power and Light Co.

Expansion program, $1,200,000, Mooresville, N. C., Mooresville Mills, Inc.

Railroad improvements, $1,000,000, Missouri, Missouri Pacific Railroad.

Paint plant, $1,000,000, Gulfport, Miss., Gulf Paint & Chemical Co.

Plant buildings, $987,000, Houston, Texas, Western Electric Co.

Line extensions, $750,000, Elizabethton, Tenn., Inter-Mountain Telephone Co.

Exchange, $700,000, Raleigh, N. C., Southern Bell Telephone & Telegraph Co.

Heating, air conditioning plant, $625,000, Alabama City, Ala., Dwight Manufacturing Co.

Warehouse, $585,000, Clearwater, S. C., Langley Manufacturing Co.

Storage building, $500,000, Houston, Texas, Humble Oil & Refining Co.

Modernization, $500,000, Greensboro, N. C., Carter Fabrics Corp.

Improvements, $500,000, St. Louis, Mo., Devlin Corp.

Slaughterhouse, $477,400, Nashville, Tenn., Neuhoff Packing Co.

Chemical plant, $450,000, Richmond, Va., Virginia-Carolina Chemical Corp.

Furniture plant, $425,000, Monroe, La.,

(*Continued on page* 63)

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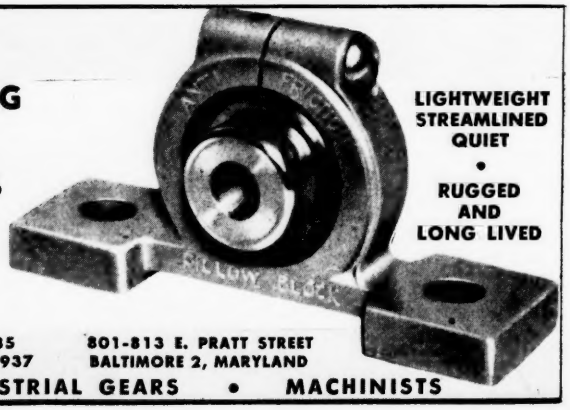

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Contract Value Up

(*Continued from page* 62)

Seligman Manufacturing Co.

Toy factory addition, $365,000, Glenvale, W. Va., Louis Marx & Co.

Oxides plant, $350,000, Muirkirk, Md., Mineral Pigments Corp.

Terminal improvements, $330,000, Atlanta, Ga., Atlanta Terminal Co.

Furniture plant, $315,500, Greenville, Tenn., Greene County Foundation, Inc.

Warehouse, $308,000, St. Louis, Mo., Western Electric Co.

Dyeing and bleaching addition, $300,000, Griffin, Ga., Dundee Mills.

Substation, $250,000, Baltimore, Md., Consolidated Gas Electric Light and Power Co.

Finishing plant, $240,000, Hickory, N. C., Duke Hosiery Co.

Telephone facilities, $223,000, Virginia, Chesapeake & Potomac Telephone Co.

Warehouse, $180,000, St. Louis, Mo., Texas Company.

Printing plant annex, $160,000, Knoxville, Tenn., Knoxville *News-Sentinel*.

Plant, $157,400, Knoxville, Tenn., Standard Knitting Mills, Inc.

Canning plant, $150,000, North Little Rock, Ark., Little Rock Food Products Co.

Rice drying plant, $150,000, Abbeville, La., Vermilion Farmers Cooperative Association.

Meat packing plant, $125,000, Corpus Christi, Texas, Henry Starnes.

Freight terminal, $115,000, Knoxville Truck Sales & Service, Inc.

Automobile parts plant, $110,000, Hapeville, Ga., Southeastern Manufacturing Co.

Warehouse, $105,900, Laredo, Texas, Texas-Mexican Railway Co.

Creamery, $100,000, Decatur, Ala., Whiteway Creamery.

Mill addition, $100,000, Rome, Ga., Anchor Rome Mills, Inc.

Warehouse, $100,000, St. Louis, Mo., Caine Steel Co.

Bottle crown plant, Dallas, Texas, Armstrong Cork Co.

Railroad spur, Baltimore, Md., Pennsylvania Railroad.

Consolidated-Vultee

(*Continued from page* 60)

the floor, the underframe is turned on its side to make work more accessible. This is accomplished by an ingenious fixture attached to overhead carriers.

When the coaches reach the 15th position they are removed from the conveyor and started on their own wheels through the 600 foot long paint line which consists of a series of paint spray booths and drying ovens. The surface of the bus is thoroughly cleaned and two coats of surfacer applied. The whole bus is then moved into a huge oven and baked. Then the surface is hand rubbed to assure a smooth foundation for the finish coats. Interior and exterior colors are sprayed on as the coach moves from booth to booth at intervals of 1½ hours. A car puller is used as motive power for moving all coaches at once in this line.

Immediately after painting, items such as seats, grab-rails, stanchions and interior and exterior trim are added. The coach is then moved to what was formerly the aircraft hangar where final touchup, engine tuneup, greasing and safety checks are made. When all parts are in place and the machine operates to the satisfaction of production department, the inspection department gives it a rigid series of road tests and inspections to assure perfect mechanical operation and riding comfort. The coach is now ready for delivery.

(*Continued on page* 68)

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NEW AND EXPANDING PLANTS

(*Continued from page* 8)

service department, $40,000.
MYRTLE BEACH — Myrtle Beach Broadcasting Co., broadcast station.

TENNESSEE

BELLEVIEW — Chuck Hutton Co., parts warehouse, $46,500.
CHATTANOOGA—Standard-Coosa-Thatcher Co., additions, $200,000.
CHATTANOOGA — Chattanooga Terminal Authority, removal of railway yards from heart of central business district, $3,982,000.
CHATTANOOGA—General Oils, terminal.
CHATTANOOGA—E. I. du Pont de Nemours & Co., 7 buildings, $47,200.
DYERSBURG — Sytz Fabrics, Inc., plant, $44,000.
ELIZABETHTON — Inter-Mountain Telephone Co., building, $750,000.
ERWIN — Berkshire Fine Spinning Corp., additional facilities.
GREENVILLE—Greene County Foundation, Inc., plans furniture factory, $315,530.
JACKSON — Aaron B. Robinson Dixie Broadcasting Co., radio station.
KNOXVILLE — Standard Knitting Mills, Inc., plant, $157,430.
KNOXVILLE — Knoxville Truck Sales & Service, Inc., terminal, $115,000.
KNOXVILLE — Knoxville News-Sentinel, annex to plant, $160,000.
KNOXVILLE—Publix Shirt Corp., factory.
McMINNVILLE — Southern Box Co., factory.
MEMPHIS—Kimberly-Clark Corp., alterations and repairs to house new operations department.
MEMPHIS—Bluff City Broadcasting Co., Ltd., broadcast station and change of studio location.
MONSANTO, R. STA., COLUMBIA — Monsanto Chemical Co., addition to office building, addition service building, addition machine shop, additions, alterations and improvements to storeroom, cafeteria building.
MORRISTOWN — Stauffer Chemical Co., $2,000,000 chemical plant.
NASHVILLE — Neuhoff Packing Co., slaughterhouse, $477,400.
NASHVILLE — McDonald Manufacturing Co., plant.
PARIS—Kentucky Lake Broadcasting System, Inc., radio station.
SPARTA—Sam E. Breeding, plant.
TIPTONVILLE—West Tennessee Soya Mill, new soybean storage tanks.

TEXAS

AMARILLO—U. S. Department of the Interior, Bureau of Mines, two steel transite buildings.
AMARILLO—Preston Brown plans service station.
AMARILLO — Top of Texas Broadcasting Co., radio station.
BALLINGER—Runnels County Broadcasting Co., radio station.
BEAUMONT — WCPZ Broadcasting Co., radio station.
BEAUMONT—Himmel Motor Co., office and shop building, $90,000.
BELLVILLE—Brazos Valley Refrigeration Coop., locker plant, $17,000.
CLEBURNE—Marti, Inc., radio station.
CORPUS CHRISTI—Southern Alkali Corp., building, $26,050.
CORPUS CHRISTI—Corn Products Refining Co., engine room building, $95,714.
CORPUS CHRISTI—Henry Starnes, plant, $125,000.
CROCKETT—M. S. McMullen, bus station and cafe, $18,000.
DALLAS — Curtiss Candy Co., products plant, $2,250,000.
DALLAS—Barada & Page, Inc., warehouse and office.
DALLAS — Brazoria County Broadcasting Co., radio station.
DALLAS—KRLD Radio Corporation, class B, 46 KW, 490 feet.
DALLAS—H. Tidwell, laundry.
DALLAS—Union Terminal Co., alterations to Union Terminal Building.
DALLAS—Nash-Kelvinator Corp., Bertram C. Hill, auto parts storage.
DALLAS — Central Industries, Inc., office building.
DALLAS—R. A. Finch, factory, $10,000.
DALLAS—Magnolia Petroleum Co., warehouse and office building.
DALLAS—Armstrong Cork Co., plant.
DALLAS—Verson Manufacturing Co., 1,000-ton press.
DALLAS — Banda-Page Co., warehouse, $40,285.
DALLAS—Walls Pontiac Co., plant.
DALLAS—Texlite, Inc., plant.
DALLAS — Auto-Chlore, Inc., Memphis, Tenn., warehouse and office building, $30,000.
DENISON — Southwestern Bell Telephone Co., addition.
DENTON—City, power plant building and engine foundation, etc.
EDINBURG — J. C. Looney radio station studio and offices, $11,500.
FORT WORTH—Erwin Manufacturing Co., facilities.
FORT WORTH—Joe Horn Drug Co., plans warehouse, $30,000.
FORT WORTH—Magnolia Pipe Line Co., 20-inch pipeline.
FORT WORTH—Fort Worth Broadcasting Co., station.
FREEPORT—Brazoria County Broadcasting Corp., radio station.
GAINESVILLE—Atlantic Coast Line Railroad, freight and passenger depot, $135,000.
HARLINGEN — Harbenito Broadcasting KGBS Co., vertical antenna with FM antenna mounted on top.
HARLINGEN—Harbenito Broadcasting Co., Inc., FM radio station.
HOUSTON—Houston Belt & Terminal Railroad Co., freight warehouse, $40,000.
HOUSTON—Houston Belt & Terminal Co., freight yards, $2,000,000.
HOUSTON—National Industrial Laundries, laundry building.
HOUSTON — Southwestern Bell Telephone Co., Dallas, telephone building.
HOUSTON—Ceco Steel Products Corp., office and shop building.
HOUSTON — Westinghouse Electric Co., manufacturing building, office building, $1,000,000.
HOUSTON—MacKie & Kamrath, manufacturing plant.
HOUSTON — Houston Power & Equipment Co., building, $84,932.
HOUSTON—U. S. Mengel Plywood, Inc.,

(*Continued on page* 66)

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This tract of 3785 acres, with ample running spring branches and practically all fenced and some cross fences, is by far the best BARGAIN now available in the Ozarks Region, so far as we have been able to find. The price is only $6.00 an acre, and terms can be arranged with a responsible buyer. The Ozarks Region is rapidly developing as one of the best livestock areas in the United States, including cattle, hogs, sheep and goats. Detailed information available to interested persons. Write quickly.

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NEW AND EXPANDING PLANTS

(*Continued from page* 64)

warehouse.

HOUSTON — Humble Oil & Refining Co., warehouse and office building, $500,000.

HOUSTON—Western Electric Co., Inc., office and warehouse, storage dock, assembly room, and a garage building, $987,000.

HOUSTON—Pepsi-Cola Bottling Co., plant, $500,000.

JACKSONVILLE — Billy Averitte Laurie Portable, remote pickup station.

KERRVILLE — Garden of Memories, entrance and wrought-iron fence and gates.

LAMESA—Lamesa Broadcasting Co., radio station.

LAREDO — Texas-Mexican Railway Co., storage warehouse, $105,915.

LAREDO — R. Zuniga & Brothers, warehouse.

LITTLEFIELD—J. C. Rothwell, broadcast station.

LOMETA — Lometa Refrigerator Cooperative, Inc., for refrigeration machinery and installation of locker plant.

McALLEN — Valley Broadcasting Association, Inc., radio station.

MONAHANS — Texas Electric Service Co., building.

ORANGE—Orange Bold Corp., building.

PORT ARTHUR—L. C. Baker, service station, $12,000.

SAN ANTONIO — Public Service Board, building.

SAN ANTONIO — Southwestern Bell Telephone Co., addition to east side of present garage.

SAN ANTONIO — A. C. Lowe, warehouse, $51,300.

SAN ANTONIO—Armstrong Tire & Rubber Co., air-conditioning.

SAN ANTONIO — Harold Schaezler plans filling station.

SAN ANTONIO — Charles W. Balthrope, station.

SAN ANTONIO—Spencer Motor Co., building.

SAN ANTONIO — Valcar Enterprise, Inc., plant.

SAN ANTONIO—Scobey Fireproof Storage Co., warehouse.

SAN ANTONIO—L. B. Kelly Co., addition to building, $23,700.

SAN ANTONIO — Mission Provision Co., welfare building.

SAN ANTONIO — W. E. Huffaker, warehouse.

SUGAR LAND—Imperial Sugar Co., office and laboratory building.

TAYLOR—Dr. Pepper Bottling Co., factory, $52,000.

TEXAS CITY — Texas City Broadcasting Service, radio station.

TYNER — Tyner Processing and Lockers, Inc., food freezing and processing plant.

UVALDE—Uvalde Broadcasters, radio station.

WACO—Cameron Lumber Co., office building.

WACO—Southwestern Bell Telephone Co., exchange building.

WESLACO—KRGV, Inc., radio station.

WICHITA FALLS — Coca Cola Co., plans garage and storage addition, $16,000.

WICHITA FALLS — Wichita Broadcasters, radio station.

WINNIE—McCarthy Oil and Gas Corp., additions and enlargements to gas absorption, $15,500,000.

VIRGINIA

Chesapeake & Potomac Telephone Co., existing facilities, $223,000.

FALLS CHURCH — Lamar A. Newcomb, standard broadcast station.

FRONT ROYAL — Sky-Park Broadcasting Corp., station.

HAMPTON—Peninsula Broadcasting Corp., broadcast station.

HARRISONBURG — Harrisonburg Telephone Co., storage and repair building, $21,650.

MARTINSVILLE—American Furniture Co., Inc., additions, $70,000.

NEWPORT NEWS—Sharf Distributing Co., office and warehouse.

NEWPORT NEWS—Greyhound Bus Company, bus terminal.

NORFOLK — Strietman Biscuit Co., warehouse, $44,000.

NORFOLK—Chesapeake and Ohio Railway, coal pier, $6,500,000.

PORTSMOUTH—Portsmouth Star Publishing Corp., class B, 32 KW; 290 feet.

RICHMOND — Concrete Pipe & Products Co., addition to office.

RICHMOND—Charlie B. Pittman, cleaning and pressing plant, $10,000.

RICHMOND — Dr. Pepper Bottling Company of Richmond, Inc., warehouse, $65,000.

RICHMOND — Richmond Wiper Supply, Inc., building, $12,000.

ROANOKE—Hodges Lumber Corp., warehouse, $26,000.

SALEM—Chesapeake & Potomac Telephone Co., telephone building.

WARWICK COUNTY—Southern Colorplant Corp., building.

WAYNESBORO—E. I. DuPont de Nemours, Inc., maintenance and equipment building, $46,456.

WAYNESBORO — Crompton - Shenandoah Co., Inc., addition, $73,379.

WEST VIRGINIA

BLUEFIELD—Relocating and building first section of Norfolk and Western Railway's main line project, west of Bluefield, $12,000,000.

FAIRMONT — Fairmont Broadcasting Co., radio station.

FORT SPRING—Acme Limestone Co., plant, $150,000.

GLENVALE—Louis Marx & Co., addition, $365,000.

GRAFTON—Harmic Motor Co., auto sales and service building, $21,881.

HUNTINGTON—Chesapeake & Ohio Railway Co., tunnel.

PINEVILLE—Wyoming Broadcasting Co., radio station.

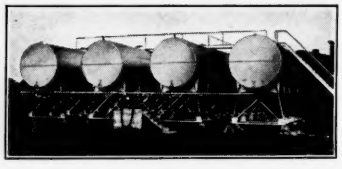
SOUTH CHARLESTON — Carbide and Carbon Chemicals Corp., administration building, $1,254,000.

WASHINGTON—E. I. DuPont de Nemours & Co., additional facilities, $32,185.

Gas Revenues Up

Operating revenues of natural gas companies reporting to the Federal Power Commission amounted to $207,322,334 for the first quarter of 1947, an increase of 22.2 percent over the $169,699,038 reported for the comparable 1946 period.

SOUTHLAND PRODUCTS
—WELDED OR RIVETED—



We now manufacture and offer to the trade tanks in all sizes for pressure or gravity work. Also other steel equipment of either

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Structural Steel for all Industrial Structures, Buildings and Bridges
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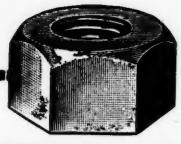
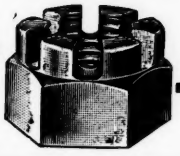


3664 Park Ave.
St. Louis 10,
Missouri



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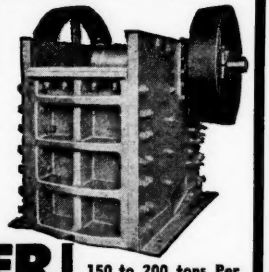

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ALL HEAVY DUTY STEELBUILT

Consolidated-Vultee

(*Continued from page* 63)

Today in Nashville, San Diego and Cincinnati, these Nashville made coaches are at work transporting the public to and from their homes, work and play. In the near future most of the nation's major cities will know and use these coaches.

Yes, there is a difference at the Nashville Plant of Consolidated Vultee Aircraft Corporation. Nashville and its people have justified management's decision in retaining and converting the utility. This is but one of many stories for there is a difference in other parts of the South, where war plants are being refitted for production of peacetime goods. Industry is confident that the South can, should, and will become a great industrial center in the near future and the people of the South are proving this every day.

Regulation "W"

(*Continued from page* 25)

other private credit agencies have the resources, the know-how, and the will to supply to business, large and small, the credit it requires and should have."

Mr. Cravens then outlined history of the guaranty principle with respect to loans of various kinds. It came into prominence in the early part of the 1930's and was a weapon with which to fight further deflation in a time when economy of the country was at a very low ebb, a condition partially brought about by the excessive extension of credit during the 20's. This emergency required credit relief to alleviate the disastrous effects of forced loan liquidation.

"During the time that the guaranty principle has been in operation," he asserted, "the economy of the country has been on the up-surge due to the outpouring of Federal funds—fist, through deficit financing, and then through war. Accordingly, this period has been characterized by a very high level of business activity and rising prices. Consequently there have been few losses charged against the government.

"At the present time the economy of the country is in a comparatively boom condition. From many quarters we are told that we are due for some kind of downward swing in business activity. If this recession should develop on a large scale, losses on the guaranteed loans would have to be paid out of public funds collected from the people. Therefore the funds of all the people under this system would be used to defray the losses incurred by banks supporting marginal businesses.

"No banker has a right to expect that other businesses and individuals will underwrite him. There are only some 15,000 banks and there are several million other types of business units. Have we any right to expect these other business units to underwrite and pay our losses in the downward swing of the cycle when they themselves have no such guaranty from the government?

"On the other hand, if we are to continue in a period of prosperity in an upward swing of the cycle as we have in recent years, why do we need guaranties at all?"

Florida East Coast

(*Continued from page* 48)

attention given to all other parts of the Coast Line system."

He further asserted that it would be the earnest desire of Coast Line management to render the kind of service to the Florida east coast that would justify the Commission's expression of confidence in Coast Line control and operation of Florida East Coast Railway, and to warrant approval of such control by the patrons of the railroad.

Conditions and stipulations of the Commission report provide among other things that there shall be adequate protection of affected employees in the merger, and that existing through routes via Jacksonville in connection with Seaboard Air Line Railroad and Southern Railway System be maintained.

The aggregate cost to the Atlantic Coast Line for purchase of Florida East Coast Railway will be $40,500,000, made up of cash and securities, according to the ruling of the Commission.

LATE MODEL MACHINE TOOLS

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36" BULLARD Vert., M.D.
#25-C DEFIANCE Table Type, M.D.—3¾" bar
#360-F GIDDINGS & LEWIS, Floor Type, M.D.
#560-F GIDDINGS & LEWIS, Floor Type, M.D.
42" BULLARD Vert., M.D., (1942)

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#5 B & S Plain Grdr., M.D.
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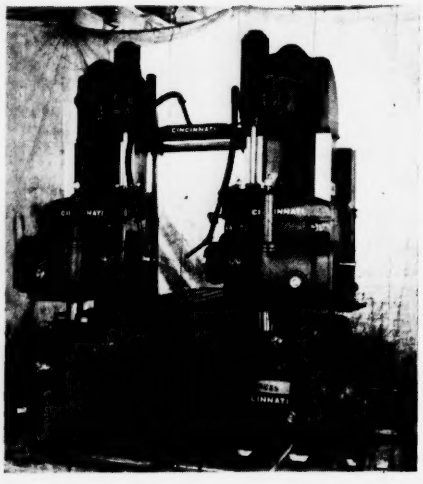
30"x120" LANDIS Type "B" Grinder (1945)
#4T SELLERS Tool Grdr., M.D.
9" P & W Hyd. Gear Grdr., M.D.
#11 BLANCHARD Rotary, 16" & 20"

LATHES

12"x30" Lodge & Shipley G.H. Lathe
14"x30" Lodge & Shipley G.H. Lathe
12"x30" Monarch Model "C" Lathe
50"x17' centers LEBLOND "BIG SWING", M.D.
32"x324" centers LEBLOND LATHE, T.A., M.D. (1942)
42"x61 Ft. centers AMERICAN "SUPER PRODUCTIVE," M.D. (1942)



#5/60 CINCINNATI Duplex Hydromatic Milling Machines, tracer control mechanism for automatic rise & fall of spindle carriers, M.D., one machine used six months—one new never used.

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#1A W & S Saddle Type Univ., M.D.
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